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EPA REGION VII
SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

EPA CONTRACT NUMBER: 68-W6-0012

Integrated Site Assessment Report
Cota Drum Site
Des Moines, Iowa

CERCLIS I.D.: Not Assigned

Technical Direction Document: S07-9602-046C

Approved:

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01/06/97
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1. INTRODUCTION

The Ecology and Environment, Inc. (E & E), Superfund Technical Assessment and Response Team (START) was tasked by the U.S. Environmental Protection Agency (EPA) Region VII Site Assessment and Cost Recovery (SACR) program, to complete an Integrated Site Assessment (ISA) of the Cota Drum site in Des Moines, Iowa under Technical Direction Document (TDD) S07-9602-046C. This site has not been assigned a Comprehensive Environmental Response, Compensations, and Liability Information System (CERCLIS) identification number so a Preliminary Assessment (PA) or a Site Inspection (SI) is not applicable.

The basic purpose of an ISA is to distinguish between sites that pose little or no threat to human health and the environment and sites that warrant further investigation. During an ISA, file information was reviewed to assemble a summary of the site's history, potential contaminants were identified, and nearby target populations and sensitive environments were evaluated. Information obtained during the ISA supports a decision of whether the site proceeds to a PA, receives a No Further Remedial Action Planned (NFRAP) classification, or may warrant a removal action. A site reconnaissance was conducted by START and EPA personnel on February 8, 1996, to acquire/verify information required to complete the ISA. Based on these findings, exploratory excavation was later conducted at the site on November 5-8, 1996.

2. SITE DESCRIPTION, OPERATIONAL HISTORY, AND WASTE CHARACTERISTICS

2.1 SITE LOCATION

The Cota Drum site is located at 5512 S.E. 14th Street, Des Moines, Iowa. The geographic coordinates of the site are 41° 30' 12.3" W latitude and 93° 35' 5.1" N longitude (Reference 1). The site is located within Section 27, Township 78N, Range 24W, in Des Moines, Polk County, Iowa (Reference 2). Figure 2-1 illustrates the site location.

2.2 SITE DESCRIPTION

The site covers approximately 10 acres and consists of two parking lots and a combined manufacturing building and warehouse (Appendix A: Photo #13) (Reference 3). Figure 2-2 illustrates the site features. The site property is bounded to the south by a residential area, to the west by an elementary school (Appendix A: Photo #4), to the north by two abandoned homes and a small hotel, and to the east by Southeast 14th Street. The site is located in a light industrial/residential area, just outside the southeastern city limit of Des Moines. Cota Industries, Inc., formerly operated as a formulations facility for industrial paints and coatings including bonding/acoustic coatings and pool and paint glaze. The site is fenced but the interior of the facility is accessible through broken windows. The surrounding topography is gently rolling, and drainage from the site is to the west and north. The annual rainfall in Polk County is 30.89 inches (Reference 4). The site is located outside the 500-year floodplain (Reference 5).

2.3 OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

In the mid-1950s, Cota Industries, Inc., began manufacturing paints and coatings at the site. Cota industries was founded by Daniel L. Cota, who owned the company until 1984 when stock in the company was sold to a key employee (whose identity is not available), for a promissory note of over $140,000 (Reference 6). When the employee could not pay off the promissory note, the stocks were sold to David R. Sheets and M. Dana Kelly in 1986. After Sheets and Kelly purchased the business, the company was known as Exterior Systems and Cota Exterior System, Incorporated. The company continued under those names until 1990. During that time the facility was used for storage. Operations ceased at the site in October 1989, and on July 1, 1990, Sheets resigned, effective on October 1, 1990. On February 26, 1991, Daniel Cota bought an assignment of certificate and took sole control of the property/facility.

At some time during the years of operation paint waste was dumped on the surface of the property and possibly several hundred 55-gallon drums were buried at the site (Reference 6). According to Daniel Cota, the drums were reportedly emptied and crushed prior to burial. The drums had allegedly contained paints/coatings, methyl ethyl ketone, mineral acids, formaldehyde, toluene, and xylene. An anonymous report to the Iowa Department of Natural Resources (IDNR) from a former Cota Industries employee alleged that most of the buried drums were empty, however, some contained formaldehyde and muriatic acid (Reference 7). This same employee also alleged that sacks of pigment containing asbestos and lead were buried on site, and coating wastes were flushed out from the building on to surface soils. Product storage inside the building reportedly included soda ash, hydrated lime, ethylene and propylene glycol, acryloid, muriatic acid, nitric acid, lead acetate, various solvents and polymers.

2.4 PREVIOUS INVESTIGATIONS

The site was initially identified by IDNR following a complaint of "leaking chemical drums" stored outside the facility on November 20, 1989 (Reference 8). IDNR conducted a followup investigation of the site on December 1, 1989, and confirmed that many 55-gallon drums were present in a drum storage area to the south of the facility (Reference 9). Also observed during the inspection, were drums stored on the loading dock along with some 5-gallon pails of a cement-looking material.

Another site visit by IDNR on December 13, 1989, revealed a disposal area of partially buried drums and other containers, extending from the northwest corner of the loading dock approximately 200 feet to the west along the northern property line. This disposal area is subsequently referred to as the drum burial area in this report. Paint waste was also observed on the ground surface immediately south of the facility and the loading dock area. The release has apparently flowed westward toward the western edge of the loading dock, and had covered an area approximately 40 feet by 40 feet. Evidence that a core sample from the paint spill area had been previously collected was observed, as a core hole through the paint indicated that it was a least four inches thick. A soil/paint sample was also collected on December 13, 1989, from the existing corehole which was subsequently submitted for heavy metals analysis. Results indicated concentrations of barium at 61 milligrams/kilogram (mg/kg), mercury at 90 mg/kg, lead at 9.4 mg/kg, and zinc at 270 mg/kg. On January 16, 1990, samples of the inner and outer paint layers collected by the IDNR contained concentrations of cadmium at 1.6 and 1.5 mg/kg, mercury at 190 and 74 mg/kg, and zinc at 570 and 5,900 mg/kg, respectively. Asbestos analysis performed on the outside paint layer sample indicated that no asbestos was present.

One additional waste sample from the paint spill area was collected by the IDNR and submitted for Extraction Procedure Toxicity (EPT), total cyanide, and phenol analyses (Reference 9). Results of the EPT analysis proved to be below the method detection limits for barium, cadmium, mercury, and lead. Concentrations of zinc, fluoride, and nitrate (as NO3), were detected at 18 mg/kg, 3 mg/kg, and 38 mg/kg, respectively, for the EPT results. Total cyanide results tested below the method detection limit, and phenols were detected at 1 mg/kg.

On August 23-25, 1990, EPA conducted a Resource Conservation and Recovery Act (RCRA) compliance inspection at Cota Industries. The inspection included a reconnaissance of the facility and the property, an inventory of the products identified in the facility, and interviews with the former owners Daniel Cota and Meredith Stubbe (Reference 10). According to Daniel Cota, Cota Industries was formed in 1955 and operations at this facility began in 1957. His ownership spanned from 1955 to December 1984. Ownership of the site at the time of the interview was in question.

Stubbe stated that water-based acrylic paints and stucco products were produced in operations at the facility during her ownership (December 1984 to September 1986). She also stated that no solvents were used in the process, only ethylene glycol. Cota stated that he had used dry powder pigments (non-metals based) until the mid-1970s, at which time he had switched to liquid glycol pigments. He also said that mercury had been used as an additive to paint products (to prevent mildew) at a mixing rate of about one-quarter to one-half pound per 300 gallons of mix. He claimed to have stopped using the mercury in late 1980. When asked about the alleged disposal of "bad" batches of paint produced during the 1950s and 1960s he stated that buckets of paint were washed in the Mixer Room and reused. During the washing process, wash water flowed out a drain pipe on the south side of the facility to the valley area about 40 feet away.

On March 16, 1991, a local resident phoned the Des Moines Fire Department and reported an incident involving the exposure of several children to chemicals within the facility at the site (Reference 11). The Des Moines Fire Department's Hazardous Materials Team subsequently responded and identified the following drummed waste in the facility: soda ash, sodium citrate, hydrated lime, propylene glycol, ethylene glycol, acryloid, mono methyl ether, pexanol, barsoleb, and diethylene glycol (Reference 7). The fire department officials also noted approximately 100 to 200 drums on the ground surface along the northern property line. No liquids were observed leaking from any of the drums. Following a radio broadcast detailing the above-referenced events, a former employee came forward with additional information pertaining to the site. He stated that most of the drums routinely buried on site were empty;

however, he alleged that some of the buried drums contained formaldehyde and muriatic acid; these drums ranged in volume from half full to full. In addition, the former employee alleged that sacks of pigment containing lead and asbestos were buried, and he also recalled coating wastes being flushed out from the building (Reference 7).

On March 18, 1991, Matthew Woody, Senior Fire Inspector, Des Moines Fire Department, interviewed Ken Cota (son of former owner Daniel Cota) who stated that empty drums had been buried in the western portion of the property behind the building (Reference 12). He stated that the drums stored on the back dock contained rocks and that the 5-gallon pails contained acrylic-based material. Woody also conducted a telephone interview with Daniel Cota on this same date. Daniel Cota stated that the hole in the ground surface of the paint spill area near the southeast corner of the building was resultant of previous sampling conducted by Ground Water Technology. According to Cota, "no problem" was found by Ground Water Technology. He also stated that there were no buried chemicals at the site, and that only "flattened buried drums" were present.

Following these incidents, IDNR requested assistance at the site from the Region VII EPA. On March 21-23, 1991, the Region VII Technical Assistance Team (TAT) conducted a visual reconnaissance and performed a geophysical survey of the suspected drum burial area (Reference 13). Visual evidence of paint waste on the ground surface was identified near the southwest corner of the building. Approximately twenty 55-gallon steel drums (containing a granular solid) and several 5-gallon buckets (containing what appeared to be plaster) were observed along the back dock at the west side of the building. Many of the plastic buckets were broken, and their contents had been released (Reference 6).

Drums were identified (on the surface and partially buried) in an area from the northwest corner of the building along the northern property line approximately 200 feet long by 15 feet wide. Drum headspace screening was conducted with a photoionization detector (PID) and results indicated no presence of organic vapors above background. It was noted that most of the drums on the surface appeared to be empty (Reference 6). The geophysical survey results indicated an area measuring approximately 100 feet by 200 feet containing a large amount of buried ferrous material which was presumed to be drums (Reference 13). The boundary of the burial area is depicted in Figure 2-2.

On March 27, 1991, Matthew Woody interviewed Russ Davis, a local resident who had considered possibly buying the property and had conducted an assessment of the property (Reference 12). Apparently, Davis had collected soil samples at a 4-foot depth and had submitted them to a certified chemist for analysis of paint, petroleum, mercury, and other contaminants. He stated that he had initiated his own assessment

after an Ankeny firm had estimated the cost of groundwater and soil analyses at fifty thousand dollars. Davis indicated that the results yielded the presence of a petroleum residue at a depth of 4 feet, but according to the chemist, the concentrations were not detected at significant amounts. Davis did not specify the location where the sampling was conducted, and no analytical results were provided.

On June 25, 1991, IDNR personnel collected fifteen surface soil samples along the north, south, and west sides of the site perimeter to determine if any surface soil contamination was present, and to evaluate the potential for off-site migration (Reference 14). IDNR analyzed samples for heavy metals (including mercury), benzene, toluene, and xylene (BTX), total extractable hydrocarbons (TEHs), and asbestos analysis. Asbestos was not detected in any of the samples. Total extractable hydrocarbons were detected ranging from 4 mg/kg to 14 mg/kg. The heavy metals, BTX, and TEHs analyses yielded the following analytes and ranges: arsenic 2.9 to 9.1 mg/kg; barium 180 to 250 mg/kg; chromium 16 to 23 mg/kg; copper 11 to 20 mg/kg; lead 14 to 30 mg/kg; nickel 15 to 21 mg/kg; selenium 1.1 to 1.6 mg/kg; zinc 48 to 66 mg/kg; benzene 0.004 mg/kg; toluene 0.002 to 0.044 mg/kg; and total xylenes at 0.029 mg/kg. No background soil samples were collected for comparison purposes during this sampling event.

On July 15-17, 1991, the TAT conducted a site assessment of the Cota Drum site, which included exploratory trenching, soil sampling, and sampling the contents of excavated drums. The purpose of the sampling was to provide evidence to support a state lead enforcement case (Reference 3). Ten samples of sludges/waste were collected from within the four exploratory excavation trenches (previously identified during the geophysical survey). The analytical results yielded the following analytes and concentration ranges exceeding the method detection limits: asbestos (trace amounts in only one sample); barium 200 and 1,100 mg/kg; cadmium at 6 and 33 mg/kg; lead from 8 to 269 mg/kg; mercury from 0.21 to 5.2 mg/kg; zinc from 22 to 290 mg/kg; toluene from 5 to 170,000 mg/kg; 4-methyl-2-pentanone at 31,000 mg/kg; and xylenes from 1.1 to 5.9 mg/kg (Reference 15). It should also be noted that no groundwater samples were collected during this assessment, as refusal (a clay layer) was encountered at a depth of 15 feet below ground surface (bgs) before reaching groundwater (Reference 13).

The following analytes represent the only concentrations that exceeded the method detection limits in three liquid waste samples from the contents of some of the buried drums that were excavated: lead at 0.035 milligrams/Liter (mg/L); zinc at 0.340 mg/L; acetone 0.2 J mg/L; toluene at 0.058 J and 0.52 mg/L; ethylbenzene at 0.18 and 5.1 mg/L; xylenes at 1.9 and 20 mg/L; methyl ethyl ketone at 0.36 J mg/L; 1,2-dichloroethane at 1.4 mg/L; 4-methyl-2-pentanone at 0.16 J and 0.18 mg/L; and phenol at 4.6 J and 11 J mg/L, respectively (Reference 15).

Four exploratory trenches were excavated during this investigation. Soil samples were collected from four excavated soil piles and three exploratory excavation trench bottoms at a six foot depth. The trench locations are depicted in Figure 2-3. The analytical results yielded the following analytes and concentration ranges exceeding the method detection limits: barium from 210 to 260 mg/kg; cadmium at 6.3 and 11 mg/kg; lead from 12 to 59 J mg/kg; mercury from 0.2 UJ to 16 mg/kg; zinc from 27 to 1,500 mg/kg; toluene at 0.019 mg/kg; 4-methyl-2-pentanone at 0.160 J mg/kg; xylenes at 0.003 mg/kg; bis (2-ethylhexyl) phthalate at 1.6 J mg/kg; and formaldehyde from 2.6 to 7.5 mg/kg (Reference 11).

One composite sample of soil/paint was collected from the paint spill area. Total metals results indicated detectable concentrations of lead at 4.7 mg/kg, mercury at 16 mg/kg, and zinc at 1,500 mg/kg (Reference 15). A sample collected from the former drum storage area was also submitted for heavy metals analysis. This sample yielded concentrations of barium at 260 mg/kg, cadmium at 6.1 mg/kg, lead at 110 J mg/kg, mercury at 9.0 J mg/kg, and zinc at 150 mg/kg (Reference 15). Some of the concentrations listed above are J-coded or UJ-coded. The (J) denotes that the associated value is an estimated quantity, and the (UJ) denotes that the reported constituent may or may not be present.

On February 8, 1996, START conducted limited sampling of the containerized product/waste housed within the building at the site. Representatives of EPA, the City of Des Moines, and IDNR were present during the sampling event. Ron Kozel, IDNR, stated that at the present time no one actually claimed ownership of the property, as Cota Industries, Inc., had ceased operation in 1989 following a series of investigations by IDNR. These investigations reflected poor waste handling practices at the facility, which included asbestos violations, process waste spills, and waste/drum burial activity on site. Kozel also stated that IDNR had pursued the case as an enforcement action in the Iowa Supreme Court and had won, but the potentially responsible party (PRP) had left the state, so little or no cost recovery had ever occurred. The site was then referred to EPA by IDNR in August 1995, after their enforcement operations were exhausted. Kozel identified the potential contaminant source areas as former drum storage area (Appendix A: Photo #2), the paint spill area (Photo #1), and the drum burial area (Photo #3). During the reconnaissance, nineteen 55-gallon drums containing a solidified material and eleven 5-gallon buckets were observed on the dock on the west side of the facility (Photo #5).

A general inventory of the containerized product/waste within the facility revealed that it was primarily located in four areas of the building, which were designated as follows: the main storage room, the pigment storage room, the paint mixing room, and the drum storage room (Figure 2-2).

The main storage room contained several hundred bags of pelletized and/or powdered dry product (i.e., portland cement, vise cover seal, and gypsum plaster). In addition to the dry product, several hundred 5-gallon plastic buckets of product were also stored there, which included vice texture coatings, elastomeric joint mastic, sand blast finish, medium trowel finish, heavy trowel finish, heavy sand finish, drew foam, vise adhesive, and pre-mix block filler (Appendix A: Photo #10) (Reference 16). Six other steel drums (four 55-gallon and two 85-gallon) were located in the main storage room by the overhead door on the east side of the building. The drums' contents had been generated from the previous trenching activities. Four of the drums contained waste, and the other two drums contained decontamination water (Appendix A: Photo #9). Drums containing solidified waste were observed along the back dock area (Appendix A: Photo #5) on the west side of the building (Reference 16).

A total of 11 waste samples were collected at the site. Samples were collected from four drums containing product/waste in the drum storage room (Appendix A: Photo #6), and three fiber drums in the pigment storage room. A total of 27 fiber drums containing dry powdered pigments of various colors were located in the pigment storage room. Three samples from the paint mixing room were also collected (Appendix A: Photo #8). This room contained approximately 50 to 100 5-gallon plastic buckets of paint. It should be noted that a conduit through the south wall of the paint mixing room to the ground surface adjacent to the south of the facility was identified. Based on historical evidence, this conduit was formerly used to discharge wash water from process rinsing operations on to the ground surface (Reference 10). A single sample was also collected from one of the four drums that contained product/waste which had been generated from the past trenching activities. This was the only drum of the four that was sampled, because the other three drums contained solidified material and/or crushed metal containers that were unable to be sampled.

All five drum samples submitted for flashpoint testing yielded flashpoints greater than 60 degrees Celsius. In addition, the following VOCs (with associated concentration ranges) were also detected in the drum samples: toluene from 1.1 to 320 mg/kg; ethyl benzene from 0.38 to 14 mg/kg; methyl ethyl ketone from 0.47 to 190 mg/kg; 2-hexanone at 2.9 and 32 mg/kg; 4-methyl-2-pentanone from 0.28 to 17 mg/kg; ortho-xylene from 0.25 to 12 mg/kg; and m and/or p-xylenes from 1.1 to 65 mg/kg. Mercury concentrations ranging from 0.00489 to 0.495 mg/kg were detected in samples of powdered pigment and paint (Reference 17).

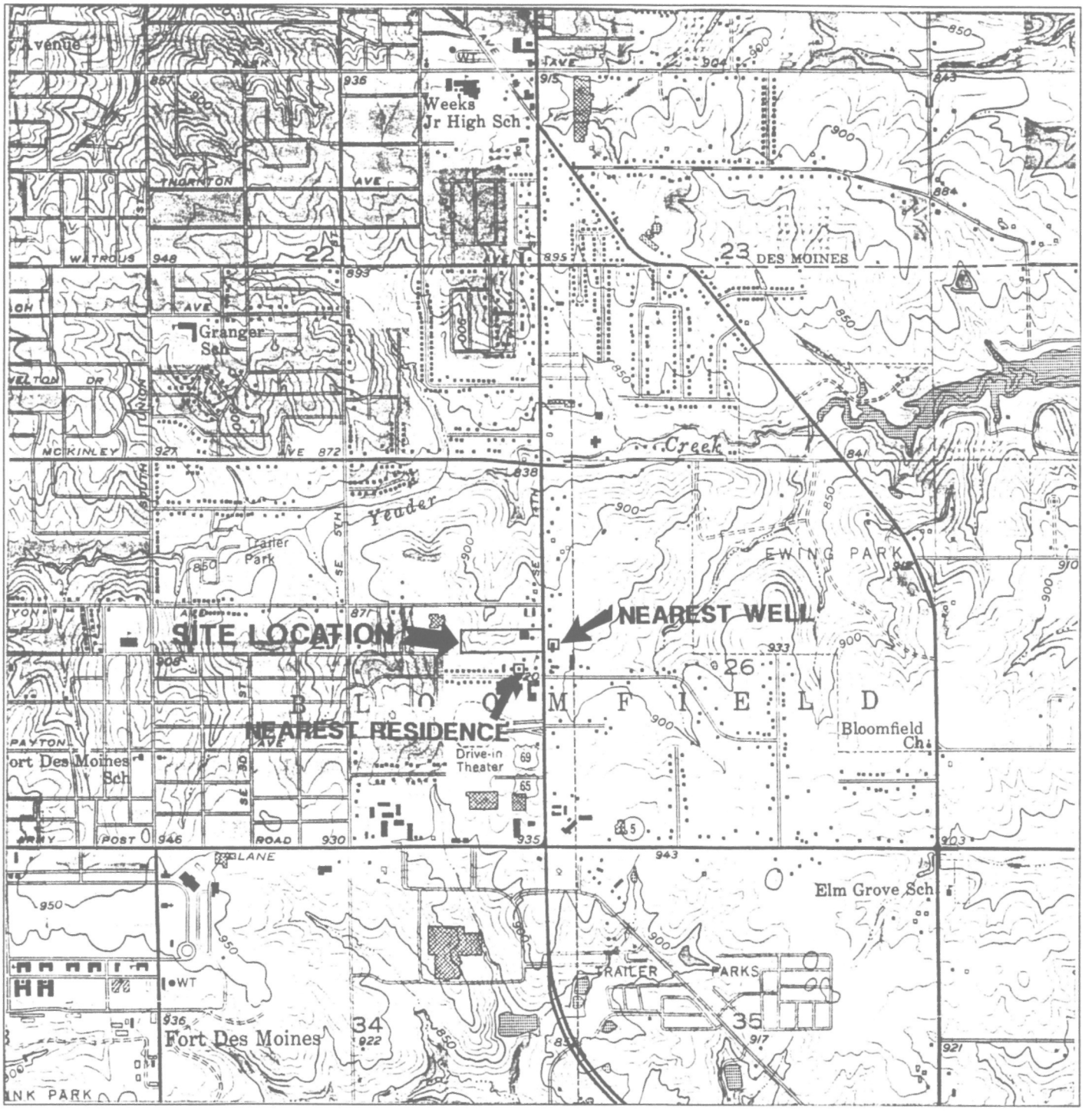
2.5 CURRENT SITE ACTIVITIES

Exploratory trenching was undertaken on November 5-8, 1996, in an effort to determine if any buried hazardous waste was present on site and to gather additional data to allow completion of this ISA report. The START subcontracted P.W. Stephens Environmental Co. to conduct the exploratory investigation of suspect areas previously identified by TAT in a July, 1991 geophysical survey. Some exploratory trenching was performed during the TAT investigation, however, not all of the anomalies identified during the geophysical investigation were excavated at that time. The areas where excavation was conducted during the START 1996 investigation were as follows: trench TR-3, trench TR-2, trench TR-5, trench TR-6, and the paint spill area on the south side of the facility (Reference 18). The trench locations during the START November 1996 investigation are depicted on Figure 2-3.

The investigation-derived waste excavated during the START activities was staged on site in a total of 15 roll-off boxes. Eight of the roll-offs were provided by United Waste Systems Corporation, Des Moines, Iowa and seven were provided by Artistic Solid Waste Systems, Des Moines, Iowa. Following approval of two Special Waste Authorizations by IDNR on November 6, 1996, for disposal of the investigation-derived waste (specifically defined as cement/plaster pigment and soil with paint/plaster) (Reference 19). Nineteen 55-gallon drums of powdered pigment were staged in the loading dock area on the west side of the Cota Industries facility. Approximately 50-100 plastic 5-gallon plastic containers of the solidified cement/plaster waste were also staged in this same area. Both of these wastes were placed in the roll-off boxes (in addition to the crushed drums/containers removed during the excavation) that were subsequently delivered to the Metro Park East Sanitary Landfill, Mitchellville, Iowa for disposal. The final roll-off boxes of waste were transported to the landfill on November 8, 1996 (Reference 18). Following removal of the waste that was staged outside the facility, no waste remained on site that was accessible to the public.

Seven drums (two 85-gallon metal overpacks that contained liquid waste, two 55-gallon metal drums containing crushed solidified waste in plastic/metal containers, two 55-gallon drums that contained decontamination water, and one 85-gallon overpack that contained personal protective equipment [PPE]) were generated during the previous TAT excavation activities and had been staged inside the facility. The two drums of decontamination water were disposed of on site in an area proposed for excavation after visual inspection of their contents and headspace screening with an OVA (concentrations of 1.5 and 6 parts per million (ppm), respectively. The contents of the two drums that contained metal/plastic containers of solidified waste (cement/plaster material) were placed in a roll-off box for disposal. The two drums containing liquid waste (one contained approximately 15 inches of amber liquid and the second was

approximately one-third full of a white paint-like substance) were mixed with kitty litter and stabilized with portland cement. Following stabilization, this waste was also placed into a roll-off box for disposal as a special waste (analytical results for the contents of both drums indicated only low level VOC concentrations). The single 85-gallon drum that contained PPE was brought back to Kansas City and disposed of in the controlled dumpster at the E & E garage (Reference 18).



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Ecology & Environment, Inc./START
TDD: S07-9602-046C
PAN: 0096CISCXX
Prepared by STM Mark Mayo
August 1996

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OVERLAND PARK, KANSAS

Source: USGS 7.5 minute series, 1956
Des Moines SE, IA Quadrangle

Figure 2-1: Site Location Map

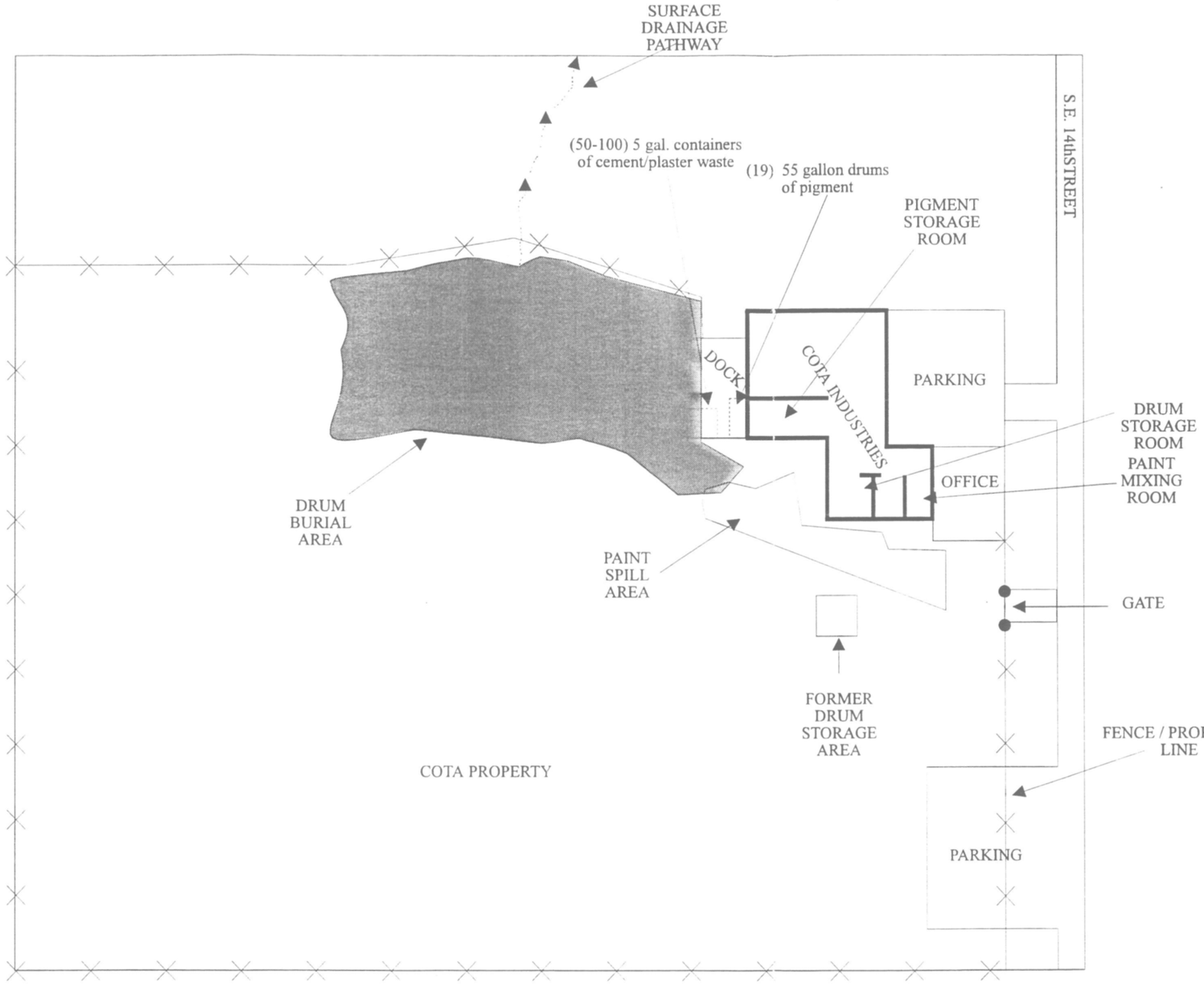

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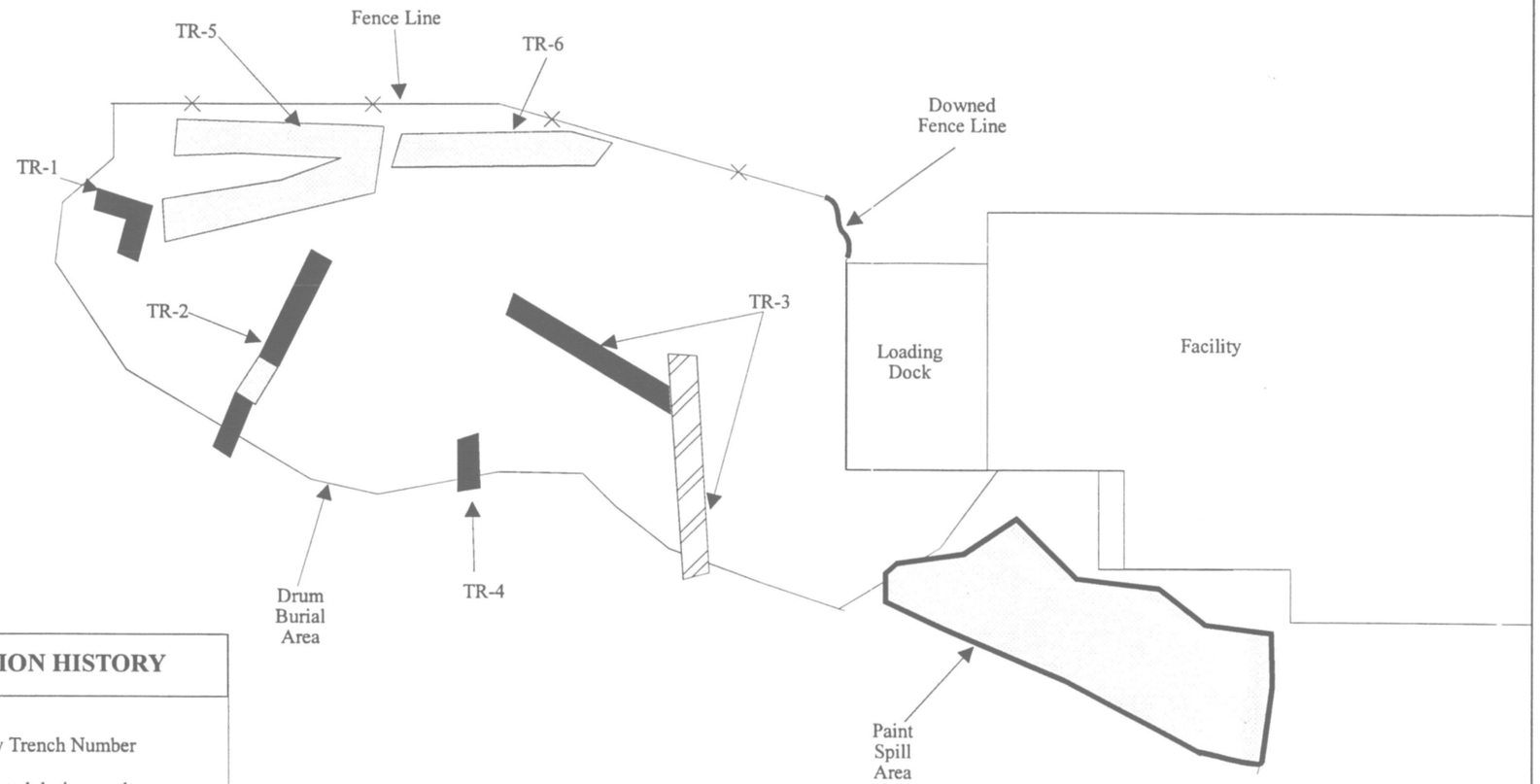
Figure 2-2: Site Map

Source: TAT Site Assessment Report, Cota Drum Site, September 1991 and START Field Notes



EXCAVATION HISTORY

TR-4 - Exploratory Trench Number

- Area excavated during exploratory excavation in November 1996

- Exploratory trenches excavated in July 1991

- Areas excavated in November 1996 and in July 1991

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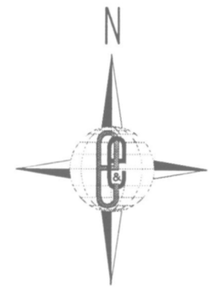

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Source: Field Logbook

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Figure 2-3: Site Excavation Map

3. GROUNDWATER PATHWAY

3.1 HYDROGEOLOGIC SETTING

In Polk County there are two principal sources from which users obtain water supplies: the loose, unconsolidated materials near the land surface that comprise the surficial aquifer, and several deep rock aquifers. Between the surficial aquifer and the Cambro-Ordovician aquifer are two other major water-bearing units, the Mississippian and the Devonian aquifer system. However, throughout Polk County the water contained in these aquifers is highly mineralized and often of too poor quality for human or livestock use (Reference 20). No karst formations were identified in the site vicinity (Reference 21).

Based on the geographic location of the site and the geologic mapping data available, the type of surficial aquifer underlying the site area is a drift aquifer. The drift aquifer is the thick layer of clay to boulder material (till) deposited over the bedrock by glacial ice which invaded the county at least twice in the last two million years. The composition of the glacial drift varies considerably and in many places does not yield much water. There may, however, be lenses of sand and gravel in the drift that are thick and widespread enough to store and furnish dependable water. These may be difficult to locate because of their irregular shape and because they are buried within other drift materials. Usually one or two sand layers can be found in most places that will yield enough water to meet domestic needs. The approximate thickness of the drift underlying the site is 15-30 feet (Reference 20).

Underlying the drift and other surficial materials is a thick sequence of Pennsylvanian-age rocks consisting primarily of shales. Although the Pennsylvanian rocks usually act as an aquiclude, sandstone layers within the Cherokee Group provide several wells in the southern half of the county with yields from 5 to 25 gallons per minute (gpm). The thickness of these sandstone units are quite variable and the depth of wells drilled into them vary in depth between 75 and 100 feet (Reference 20).

Underlying the Pennsylvanian aquiclude is a sequence of older rocks, portions of which form the major rock aquifers beneath Polk County. The Mississippian Aquifer is heavily used in Polk County by rural residents and consists of a series of limestones and dolostones. Yields range from 5 to 20 gpm. The Devonian Aquifer contains extremely poor quality water and is little used in the county. The Cambro-Ordovician Aquifer is the major deep aquifer in the county and includes the St. Peter sandstone, the Prairie du Chien dolomite, and the Jordan sandstone, the latter of which is the major water producer. The St. Peter, being highly friable, is generally cased out in the deep wells. Based on the site location, the range

in depth from ground surface to principal aquifers are: (0 to 80 feet) bedrock, (350 to 450 feet) Mississippian, (700 to 800 feet) Devonian, and (2,300 to 2,500 feet) Cambro-Ordovician (Reference 20).

Water levels in the surficial aquifers are difficult to determine because water rises to different levels according to the type of aquifer. The water table in the shallow drift aquifer generally slopes from high land areas toward the streams, and changes noticeably throughout the year in response to recharge from precipitation. The intermediate and deep drift and buried channel aquifers are under confined (artesian) conditions and are generally unaffected by local recharge-discharge relationships. Water levels in the drift aquifers commonly are from 10 to 50 feet below the land surface, and those in buried-channel aquifers have been reported to be as low as 150 feet below the land surface. Data indicated that a yield of less than 20 gpm could be expected for the surficial aquifer located in the vicinity of the site (Reference 20).

During the TAT 1991 site assessment, groundwater sample collection was attempted, but refusal at a clay layer was encountered at 15 feet bgs, and no water saturated deposits were identified to this depth (References 3 and 26). Based on field observations, the clay or weathered shale was apparently the Pennsylvanian Cherokee Group.

3.2 GROUND WATER TARGETS

The majority of residents within a 4-mile radius of the site are supplied by the Des Moines Water Works municipal system, which is a blended system composed of two surface water intakes and ground water infiltration gallery (References 22, 23, and 24). The Des Moines Waterworks supplies approximately 77,400 connections (63,900 are designated as residential). In addition to serving the city of Des Moines, it provides municipal water service to 14 cities/municipalities outside a 4-mile radius of the site (Reference 25). The following is a list of cities/municipalities that are supplied by the system with each respective population served: City of Berwick (1,351), City of Clive (10,899), City of Cumming (128), City of Johnston (4,171), City of Norwalk (5,659), City of Pleasant Hill (3,120), Polk County Rural Water District No. 1 (960), Southeast Polk Rural Water District (3,108), City of Urbandale (10,800), Warren Water Inc., (14,979), City of Waukee (2,635), City of West Des Moines (26,736), City of Windsor Heights (4,800), and Xenia Rural Water District (3,765) (References 27-40). The population of the city of Des Moines is 193,187 (Reference 40) (less the 53 people served by private wells) and the total estimated population receiving municipal water in the outlying cities/municipalities is 93,111 people, therefore, the total estimated population supplied by the public water system is 286,245.

The infiltration gallery is composed of a series of 4- to 5-foot diameter slotted pipes that are set horizontally underground in alluvium deposits to approximate depths ranging from 15 to 30 feet bgs (Reference 22). Groundwater from the alluvium deposits is infiltrated into the horizontal collection system. The gallery is located along a segment of the watercourse on the south side of the Raccoon River for approximately 2.75 miles within T78N, R24W, Sections 7,8, and 18 (References 22, 23, and 2). The nearest portion of the infiltration gallery is located approximately 3.3 miles northwest of the site. Figure 3-1 illustrates the location of the infiltration gallery. The eastern portion of the gallery is located within 4 miles northwest of the site, and is located approximately 7.3 miles upstream of the confluence of surface water drainage from the site to the Des Moines River (Reference 2). According to IDNR information, the infiltration gallery is the primary water source contributing to the blended system, as it provides approximately 90 percent of the total water usage for the municipal system (Reference 23). Based on this information, the infiltration system serves approximately 257,620 people.

A total of 22 private registered wells (designated for domestic/household use) were identified within a 4-mile radius of the site (Reference 42). This information was gathered from the IDNR database which only included those private wells registered since 1987. Assuming the average number of residents per house held for Polk County is 2.4, the total population served by private wells is 53 people (References 41 and 42). The private well nearest to the site is owned by W.T. Rice and is located approximately 200 feet southeast of the site (References 2 and 42) (Figure 2-1). The recorded well depth was 418 feet and the static water level was 170 feet (Reference 43).

3.3 GROUND WATER CONCLUSIONS

As previously referenced, CERCLA hazardous substances were detected in sludges and liquid waste collected from buried drums that were removed from the excavation trenches. The majority of these drums appeared to be buried at a depth of 2-3 feet (Reference 3). Analytical results of the soil samples collected from the excavation trenches at a depth of six feet indicated that no VOCs, BNAs, total metals, or formaldehyde exceeding the Superfund Chemical Data Matrix (SCDMs) benchmark concentrations for each respective contaminant detected (References 15 and 45). One compound detected in one trench bottom soil sample (4-methyl-2-pentanone) yielded a J-coded concentration of 0.16 mg/kg. This was the only compound that did not have a corresponding SCDM benchmark concentration for comparison.

EPT results of the paint waste that was located in the paint spill area on the south side of the facility did not exceed the method detection limits for the primary metals of concern, i.e., barium, cadmium, mercury,

and lead, therefore, the potential for contaminants to leach appears to be minimal (Reference 9). In addition, data from the former drum storage area, the third source area, indicated that no detectable heavy metals concentrations exceeded the SCDMs benchmark concentrations (References 3, 15 and 45). Based on the analytical data from the three source areas, the underlying clays, and the depth to ground water, the potential for a ground water release is minimal.

The site is located approximately 3.3 miles southeast of the nearest portion of the infiltration gallery on the Raccoon River. Based on the site location and the assumed influence of the Des Moines River on localized ground water flow, potential contaminant migration from the site would be to the east-northeast toward the Des Moines River. Assuming this ground water flow direction, potential ground water contamination would migrate toward the east-northeast away from the infiltration gallery. Due to the distance and cross-gradient location of the gallery relative to the site, it is unlikely that potential groundwater contaminant migration could impact this municipal water source.

The well log data for private wells in the site vicinity indicated screening in a deeper aquifer, as the screening depth intervals were greater than 200 feet (Reference 43). Based on this information and the stratigraphic data for the area, it appears that the private wells draw water from the Pennsylvanian and Mississippian Formations. However, during the TAT 1991 site assessment investigation a weathered shale or clay layer was encountered at a depth of 15 feet bgs in the drum burial area. Based on available geologic information this weathered shale is probably Pennsylvanian-age shale that may act as a aquiclude or impermeable layer (Reference 20). Thus, the potential for contaminant migration to the drift aquifer, or the deeper aquifers appears to be minimal (Reference 3).

Cota Drum Site
5512 SE 14th Street
Des Moines, Iowa

Ecology & Environment, Inc./START
TDD: S07-9602-046C
PAN: 0096CISCXX
Prepared by STM Mark Mayo
September 1996

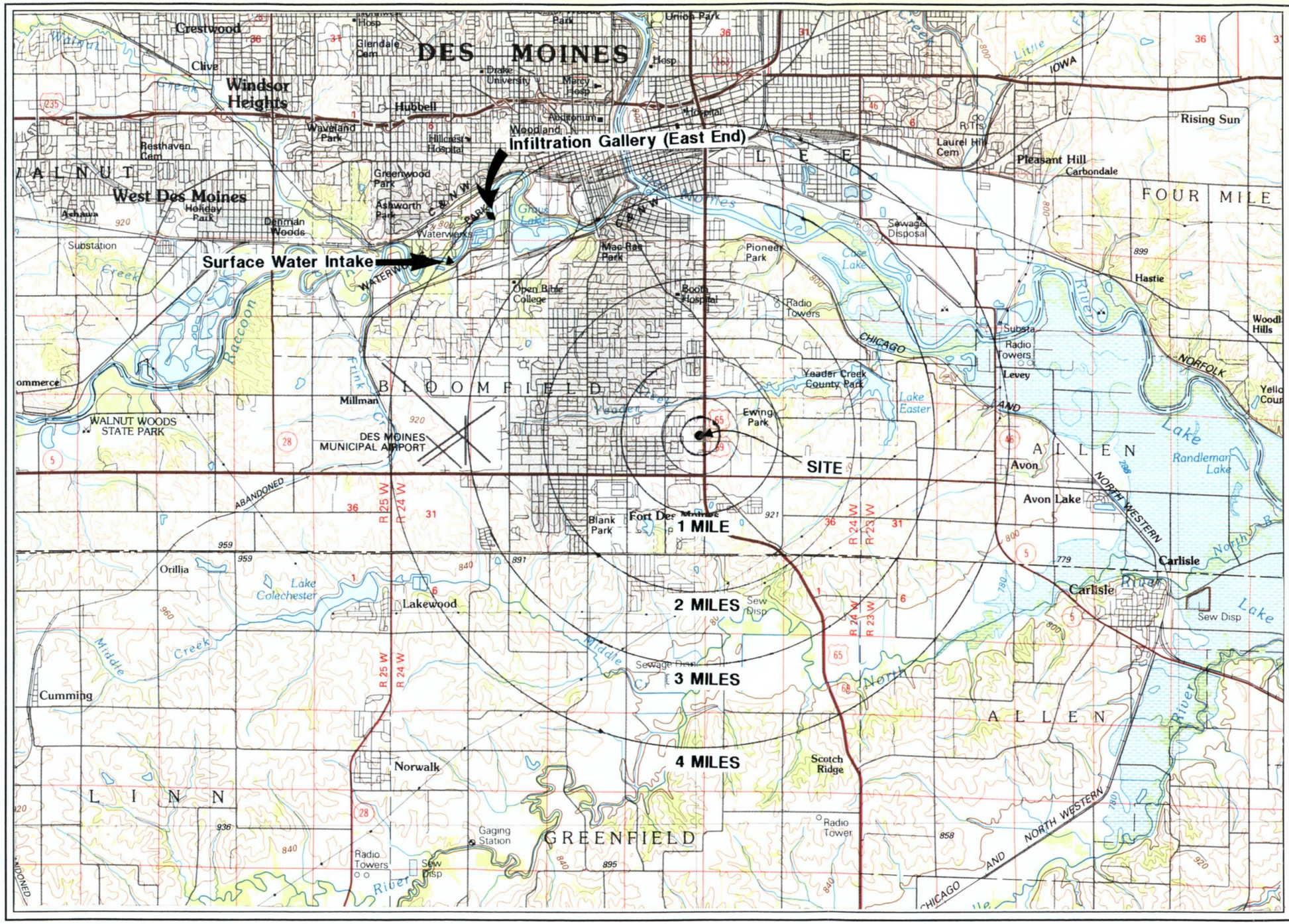

Figure 3-1: 4-Mile Radius of Influence Map

SOURCE: USGS County Maps (topographic)
Polk & Warren Co. ,IA, 1986
1:100,000 scale

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EXPLANATION

PPE - Probable Point of Entry

PPE

SITE

15-MILE TARGET DISTANCE LIMIT

N

0 1 2 3 4

MILES

SOURCE: USGS County Map (topographic)
Polk Co. ,IA, 1986
1: 100,000 scale

Figure 4-1: 15-Mile Downstream Segment Map

4. SURFACE WATER PATHWAY

4.1 HYDROLOGIC SETTING

Overland drainage from the site flows to the north approximately 2,000 feet to the probable point of entry (PPE) in Yeader Creek (Reference 2). Yeader Creek, a perennial water body, then flows approximately 5,000 feet toward the northeast into Easter Lake. Surface water from Easter Lake flows approximately 1.96 miles northeast to the confluence of the Des Moines River. The Des Moines River then flows generally southeast. The 15-mile target distance limit is illustrated in Figure 4-1.

4.2 SURFACE WATER TARGETS

There are no drinking water intakes within 15 miles downstream of the site (References 46, 47, and 48). The City of Des Moines municipal water system is composed primarily of a groundwater infiltration gallery. However, the blended municipal water system is also supplemented by a surface water intake located upstream near the Des Moines Waterworks facility on the Raccoon River, within the northeast 1/4 of Section 18, T78N, R24W, approximately 3.66 miles northwest of the site (References 22 and 2). This surface water intake is located approximately 7.32 miles upstream of the confluence of the probable point of entry (PPE) and the Des Moines River. This intake contributes approximately 10 percent of the total water usage (primarily for blending to enhance water quality) for the City of Des Moines municipal system (Reference 23).

Easter Lake is located approximately 5,200 feet northeast of the site and is within the surface water drainage pathway (Reference 2). This 464-acre area is managed by the Polk County Conservation Board and is utilized as a fishery. According to IDNR, the following sport fish can be found in Easter Lake: bluegill, crappie, large-mouth bass, and channel catfish (Reference 49). Yellow Banks County Park was also identified on the Des Moines River approximately 11 miles downstream of the PPE. Yellow Banks County Park is a 474-acre area also managed by the Polk County Conservation Board and it is located in Sections 23 and 24, within Township 78 North, Range 23 West. Access to the Des Moines River for fishing is provided at Yellow Banks County Park. The following sport fish were identified for the Des Moines River: white bass, walleye, northern pike, channel catfish, flathead catfish, freshwater drum, and carp (Reference 49).

Approximately 6.5 miles of wetland frontage was identified from the PPE along Yeader Creek to the Des Moines River (Reference 50). In addition, approximately 17.2 miles of wetland frontage was located along the Des Moines River from the PPE to the 15-mile target distance limit (Reference 51).

4.3 SURFACE WATER CONCLUSIONS

There are no drinking water intakes located within the 15-mile target distance limit. The only drinking water intake located on the Raccoon River near Des Moines Waterworks is located approximately 7.32 miles upstream of the confluence of surface water drainage from the site to the Des Moines River (Reference 2). The distance form the site to the nearest perennial water body is approximately 2,500 feet. A surface soil sample collected from the surface drainage pathway to the north yielded detectable levels of heavy metals, however BTX and TEH results did not exceed the SCDM's benchmark concentrations for soil (Reference 44). In addition, none of these concentrations were greater than two times those concentrations detected in the five surface soil samples collected along the southern site perimeter (upgradient of the sources) (Reference 14). Because of the distance to the nearest perennial surface water body and the presence of low concentrations of metals in the surface soil within the drainage pathway on the adjacent property to the north (as compared to upgradient soil samples), the potential for a surface water release is low. Therefore, the potential threat to any wetlands located within the 15-mile target distance limit, or the fisheries located in Easter Lake and in the Des Moines River appears to be minimal.

5. SOIL EXPOSURE AND AIR PATHWAYS

5.1 PHYSICAL CONDITIONS

The site is well vegetated with grass and the property is accessible because a section of the fence (approximately 50-100 feet) along the northwest corner of the building has been knocked down. During the reconnaissance on February 8, 1996, the building on site was accessible due to broken windows and visible evidence of transient use (Appendix A: Photo #11) was observed (Reference 16). However, during the exploratory excavation activities conducted by START in November 1996, the building had been adequately secured and was inaccessible to the public (Reference 18).

5.2 SOIL AND TARGETS

There are no residents or workers on site. The nearest residence is located approximately 400 feet southwest of the site, and the nearest school is located approximately 800 feet west of the site (Reference 16) (Figure 2-1). The total population within a 4-mile radius of the site is approximately 35,956 (Reference 52). No terrestrially sensitive environments, significant natural communities, or threatened/endangered species were identified within a 4-mile radius of the site (Reference 49).

5.3 SOIL EXPOSURE AND AIR PATHWAY CONCLUSIONS

Three areas of concern at the site have been identified for the soil exposure pathway evaluation. These areas included the drum burial area, the remaining material in the paint spill, and the former drum storage area. Only low levels of contaminants (primarily heavy metals and BTX) have been confirmed in surface soils at the site. None of the surface soil sample results for heavy metals, BTX, and TEH from along the northern property line (downgradient of the three areas of contamination) yielded concentrations that exceeded SCDM's benchmark concentrations (References 14 and 45). No heavy metals concentrations in the surface soil sample within the drainage pathway off site to the north were greater than two times the concentrations detected in the five surface soil samples collected along the southern site perimeter (upgradient of the sources) (Reference 14). Results of heavy metals analysis for the composite paint/soil sample collected form the paint spill area and the composite soil sample collected from the former drum storage area were also below SCDM's benchmarks for each compound detected (References 15 and 45).

During exploratory excavation at the site in November 1996, the bulk of the paint waste material on the ground surface was excavated and removed from the site, therefore, this source has been mitigated.

Trenching activities conducted during TAT's initial site assessment revealed that the majority of buried drums were located 2-3 feet below the ground surface. Although subsurface soil samples from these drums indicated the presence of CERCLA hazardous substances, they were greater than two feet below ground surface (Reference 3). Additional exploratory trenching was conducted at the site in November 1996, based on the previous geophysical results of areas that were not investigated during the TAT investigation. The excavation yielded many empty crushed metal drums/containers (two to three of the crushed metal drums contained residual waste) at depths ranging from 0 to 5 feet (Reference 18). The only items identified within two feet BGS that were found to contain product were several 1-gallon paint cans containing solidified pigment. This was the same waste that was previously sampled in the interior of the facility that did not exceed the RCRA regulatory limit for TCLP metals.

No residences or facilities were determined to be located within 200 feet of the source area(s), therefore, no soil exposure pathway threat to permanent residents or workers appears to exist (Reference 16). The building has been secured but the site is accessible through an area where the fence has been breached, so it is assumed that the potential target population consists of only a few individuals. Based on the data gathered during both of the trenching activities, the soil exposure and air pathways appear to pose a minimal threat at the site because contaminants appear to be confined to the subsurface (below 2 feet) and the site building (containing waste) is secured and inaccessible to the public.

6. SUMMARY

The Cota Drum site was first identified in November, 1989, following a citizen's complaint alleging that "leaking chemical drums" were stored outside the facility. IDNR officials confirmed this allegation and subsequently identified three areas of potential concern at the site as follows: the paint spill area, the former drum storage area, and the drum burial area. Limited sampling has been conducted in the paint spill area and the former drum storage area. A geophysical survey was conducted in the drum burial area. Based on the results of the geophysical survey, excavation was conducted and subsequent sampling of waste and soil from the trenching activities was performed. Results of the sampling indicated low levels of CERCLA hazardous substances in the subsurface soil. A surface soil sample collected downgradient of the drum burial area in the surface water drainage pathway to the north indicated low levels of heavy metals (as compared to upgradient soil samples) and no concentrations of BTX or TEH that exceeded detection limits.

No residents were identified within 200 feet of the site source areas and contaminants appear to be restricted to the subsurface, therefore, no significant threat appears to exist for the soil exposure and air pathways. The majority of residents within the 4-mile target distance limit are supplied by municipal water sources from groundwater infiltration gallery and a surface water intake located on the Raccoon River several miles upstream of the site. Therefore, no significant ground water threat appears to be present. No significant surface water pathway threat is believed to exist because only low level metals concentrations were detected in the downgradient off site drainage.

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DOCUMENT LOG SHEET

TDD# 507-9602-0416 PAN: 0096CISCXX (DLS)
PROJECT NAME: COTA Industries, Inc.
CITY/COUNTY/STATE Des Moines/Polk/IA
PROJECT LEADER: Brooks EPA CONTACT Doherty
COMPLETION DATE 5/1/96 SOURCE OF FUNDS
X CERCLA ____ OTHER
____ OPA/CWA ____ UST
____ CEPP

X TDD 2/20/96 KP
____ AOC ____ POR

DELIVERABLES SI Report dated 2-10-97 3-19-97 LKM
____ FORMAL REPORT /FR
____ LETTER REPORT /LR
X FORMAL BRIEFING Site Inspection Report dated 3-7-97 (3-11-97 LKM) /FB
X OTHER (Memo form from Pete Culver to Bob O. dated 3-10-97) (3-19-97 LKM)
X
____ VENDOR PACKET /VP
____ ADMIN. REC. /AR
____ DISKS /D
____ PRINTOUTS /PO
____ MEMO /M
____ VERBAL BRIEFING - No Deliverable Needed
____ (SPECIFY)

X SITE SAFETY PLAN BHB 12/26/96 /SP
X LOG BOOK BHB 12/26/96 /LB
____ PHOTOGRAPHS /PH
____ PHOTOGRAPHIC RECORD /P
X CONFLICT OF INTEREST FORM 3/8/96 KP /COI
X TYPING REQUEST FORM 3-19-97 LKM
X OTHER C-OC, ASR, & field sheets for Activity CU102; E+E Drum
____ Inventory Sheets; COTA SALES PAMPHLET; EPA SENSITIVE ISSUES WORKSHEET FOR COTA;
____ Field Screening Data Summary Sheet, BHB 12/26/96
____ Memo from Pete Culver dated 2-24-97 & Memo from Pete Culver dated 1-15-97 (4-10-97) LKM

LEGEND

WP-Workplan; M-Memo; T-Table; L-Letter; PA-Preliminary Removal Assessment; A-Attachment; O-Outline; I-Inventory; TC-Table of Contents; AP-Appendix; AM-Action Memo; SC-Subcontract; S-Summary; FS-Fact Sheet; SOP-Standard Operating Procedure; RF-Reference; PRP-Principal Responsible Party; L-List; BP-Bid Package; Conflict of Interest-COI

Project Leaders Initials/Date _____ DJ/JH/LD/6/90

07-5602-046

MEMORANDUM

DATE: February 24, 97

SUBJECT: Results of Review of START Work Product

FROM: Pete Culver, Candelong SACR/SUPR

TO: START Contractor Ecology and Environment

Attention: Patty Roberts

Site Name: Cota Drum Site EPA IDNo. IA0001764943

Work Product: Pre-CERCLIS Screening____ PA____ Abbreviated PA___

SSI X ESI____ Removal Assessment____ OTHER_____

Product Status: Draft X Final_____ Other (specify)_____

We have completed our review of the work product specified above. The results of this review are:

_____ The Work Product is acceptable as Submitted. We have no substantive or editorial corrections.

X The Work Product does not require substantial revision, but minor revisions/corrections/editorial changes are needed. The Work Product is attached and our comments/questions are indicated on it or are attached.

see sticker notes

_____ The Work Product requires substantial revision, and is attached. Necessary revisions are indicated on the Work Product and/or on the attached comment memo.

_____ The Work Product requires re-work. Please contact the SACR Person above (FROM:) to discuss.

Attachments: X Work Product
____Comment Memo
____No Attachments

cc: (Without attachments)
Paul Doherty, START Project Officer

A3/WPRVFRM5

07-9602-046

DATE: January 15, 1997

MEMORANDUM

SUBJECT: Cota Drum Site ISA

FROM: Pete Culver
Site Assessment Manager

TO: Paul Doherty
START PO

The report looks ok as it is, but of course a lot of additional/different info will be included in the PA/SI. I asked Carole Long to take a look at the Exposure path evaluation and stickey notes from both of us are in the report.

If you have any questions, please contact me at (913) 551-7707.

A11/COTACOM1

DKB0:[WPREPORTS.START_FORMS]DLS 7/15/96

DOCUMENT LOG SHEET

TDD# S07- 9602-046C **PAN:** 0096CISCXX

PROJECT NAME: Cota Industries Inc.

CITY/COUNTY/STATE: Des Moines/Polk/IA

PROJECT LEADER: Brooks EPA CONTACT: Doherty

COMPLETION DATE: 12/30/96 SOURCE OF FUNDS: (CIRCLE ONE) CERCLA OPA/CWA OTHER CEPP

X TDD: 9/27/96 dm AOC:

DELIVERABLES

- FORMAL REPORT (DATED)
- LETTER REPORT (DATED)
- FORMAL BRIEFING (DATED)
- X OTHER (SPECIFY) (ISA Report dated 1-6-97) 1-9-97 ZKM
- VENDER PACKET ADMIN. REC.
- DISKS PRINTOUTS
- MEMO (DATED)
- VERBAL BRIEFING-NO DELIVERABLE NEEDED
- OTHER (SPECIFY)
- X SITE SAFETY PLAN BHB 12/26/96
- X LOG BOOK(S) (HOW MANY) one logbook BHB 12/26/96
- X PHOTOGRAPHS (film only) 12/26/96 PHOTOGRAPHIC RECORD
- CONFLICT OF INTERST (COI) FORM
- TYPING REQUEST FORM(S)
- X OTHER (SPECIFY) E&E letter to Fleckenstein; EPA Drum Work Plan; Municipal Water Tabulation Sheet; Population Tabulation Sheet; IDNR sample results; EPA/IDNR Legal correspondence; (2) IDNR Legal Services Conversation Records from Mark Landa;

PROJECT LEADER INITIALS/DATE_____

PLACE AN "X" NEXT TO DOCUMENT BEING FILED. INCLUDE DATE OF DOCUMENT, YOUR INITIALS, & DATE BEING FILED

COTA INDUSTRIES

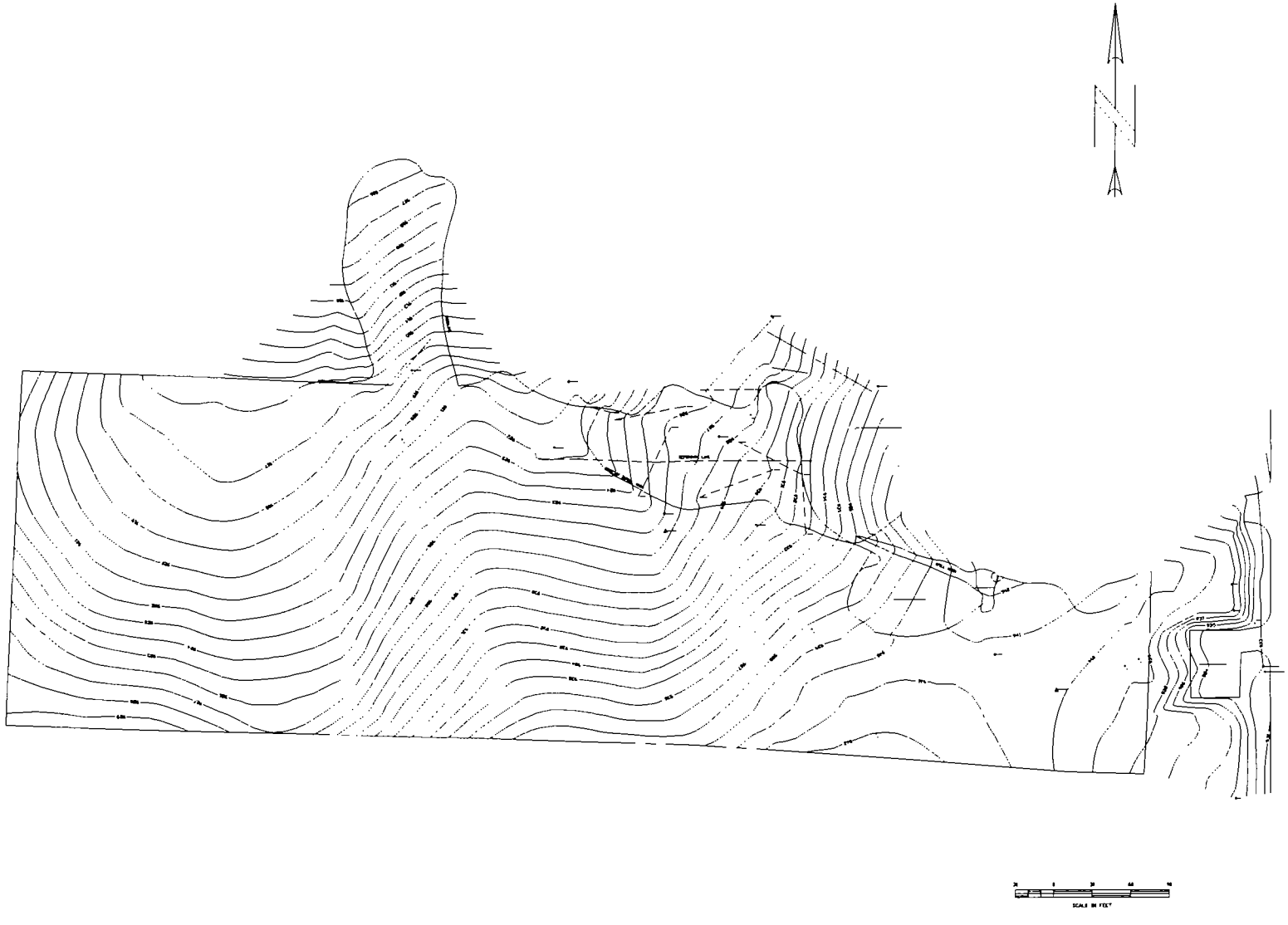
CERCLIS LISTING/SITE PRIORITIZATION ISSUES

GENERAL BACKGROUND

- Located in southeast area of Des Moines, IA
- Cota Industries manufactured adhesive wall coatings.
- Company went out of business in 1989 after series of investigations by IDNR.
- IDNR found poor waste handling practices resulted in asbestos violations, process waste spills, and waste/drum burial activity on site.
- IDNR pursued PRP cleanup as a test case for state enforcement action.
- Site was subject of past media attention.
- IDNR case was pursued to the State Supreme Court.
- IDNR won case but PRPs left state and little or no cleanup occurred or $s recovered.
- EPA (EP&R) assisted state in evidence (data) gathering investigations in March, June, and July 1991.
- EPA investigations confirmed the presence of buried drums on site.
- Samples were sent to a non-CLP lab due to capacity problems at EPA labs. Analysis detected hazardous substances but at generally low concentrations.
- Highest hits: Sludges - toluene: 170,000 ppm; 4-methyl-2-pentanone: 31,000 ppm
  Drum liquids - toluene: <1 ppm; xylene: 20 ppm
  Soils - formaldehyde: 7.5 ppm
- Site was not put into CERCLIS by EP&R.
- Site was referred to EPA (EP&R) by IDNR in August 1995 after their enforcement options were exhausted.
- In October 1995, EP&R (Munk) referred it to Cecilia for site assessment. While there is no official removal assessment in file, Wood Ramsey and Jim Kudlinski are familiar with the site and data, so I assume that EP&R's referral to Site Assessment means that they do not believe a removal action is warranted at this time.
- Site is probably not NPL caliber due to lack of HRS targets (no residents with 250'; no local groundwater use, no surface water threat, etc.)
- Evidence of vagrants and kids getting into the building.
- Commercial business districts to north, east, and south.
- Heavy residential, including grade school, located (>1,000') to west of building and waste burial area.
- Drummed waste, probably non-hazardous, remain in the building and buried out back.
- Recent visit by P. Doherty and TAT collected 11 samples of drummed waste in the building. Awaiting (EPA) analysis for metals, flashpoint, and VOAs.
- Future site assessment plans may include excavation and inventory of all buried waste and integrated PA/SI investigation, probably in spring.

ISSUES

- Issue: Do we want to pursue excavation of wastes if we are not prepared to deal with disposal then and there (i.e., Do we sample and throw back into hole if its non-hazardous or not hazardous enough to prioritize for removal?
- Issue: Do we wait until reports are done and future action determined before we put site into CERCLIS?
- Issue: What is political fallout from walking away from site that IDNR. pushed to state Supreme Court? Do we care?
- Issue: Should we "write off" this type of site with a non-traditional, "streamlined" investigation approach?
- Issue: Is it advisable not to have a site in CERCLIS when we know that there are buried waste remaining on the property which EPA may not have $s to address?



COTA INDUSTRIES

07-9602-046C

SURFACE SOIL

IDNR SOIL SAMPLE RESULTS

mg/kg

VOCs

PPM

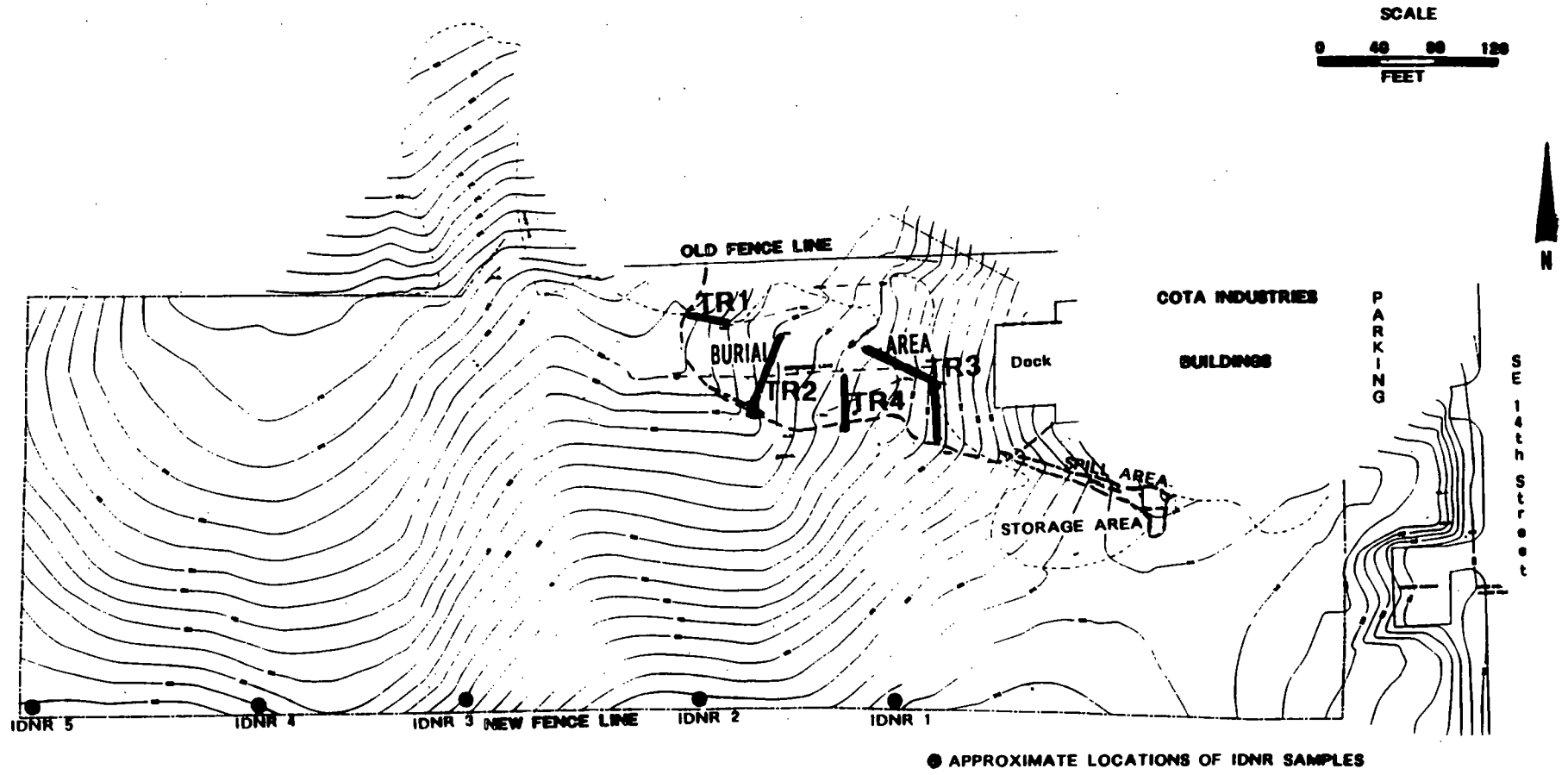
07-9602-046C

SAMPLE #	ARSENIC	BARIUM	CHROMIUM	COPPER	LEAD	NICKEL	SELENIUM	ZINC	BENZENE	TOLUENE	XYLENES	PPM TEH
1	6.9	230	22	14	28	16	1.6	64	BDL	BDL	BDL	4
2	5.8	210	17	12	26	15	BDL	60	BDL	.002	BDL	5
3	2.9	210	20	16	23	19	1.4	54	BDL	BDL	BDL	5
4	9.1	220	23	15	17	18	BDL	57	.004	.044	.029	7
5	4.8	250	21	11	22	17	BDL	56	BDL	.003	BDL	8
6	6.3	200	22	19	BDL	18	BDL	59	BDL	BDL	BDL	4
7	3.4	200	20	17	22	18	BDL	58	BDL	BDL	BDL	12
8	3.4	220	20	15	14	18	BDL	55	BDL	BDL	BDL	6
9	8.4	190	18	14	BDL	20	1.2	54	BDL	BDL	BDL	BDL
10	6.4	190	16	14	19	16	BDL	50	BDL	BDL	BDL	5
11	6.6	180	22	18	30	18	BDL	62	BDL	.003	BDL	4
12	6.6	180	19	20	27	17	BDL	66	BDL	.002	BDL	6
(13) Surface water pathway	8.5	220	21	20	14	21	1.5	48	BDL	BDL	BDL	BDL
14	6.7	200	21	18	28	17	1.1	57	BDL	BDL	BDL	4
15	5.0	200	16	16	15	15	BDL	48	BDL	BDL	BDL	14

RANGES:

ARSENIC	2.9 - 9.1
BARIUM	180 - 250
CHROMIUM	16 - 23
COPPER	11 - 20
LEAD	14 - 30
NICKEL	15 - 21
SELENIUM	1.1 - 1.6
ZINC	48 - 66
BENZENE	.004 (1)
TOLUENE	.002 - .044
XYLENES	.029 (1)
TEH	4 - 14

Total Extractable Hydrocarbons



COTA DRUM SITE, POLK COUNTY, DES MOINES, IOWA

SITE MAP TDD# T07-9110-016 PAN# EIA-0160-QAA

START

1. COST CENTER: 00 KJ7100 PAN NUMBER 0096CISCXX	~~TAT~~ - CONTRACT 68-W6-0012 TECHNICAL DIRECTION DOCUMENT (TDD) OHM EMERGENCY RESPONSE AND SPILL PREVENTION PROGRAM Ecology & Environment			2A. NO: 00-9602-0046C 2B. TYPE: S CERCLA SITE INVESTIGATIO N/ASSESSMENT
3A. PRIORITY: [ ] HIGH (1) [X] MEDIUM (2) [ ] LOW (3) 3B. EPA CONTACT: DOHERTY, PAUL 551-7924	4. SOURCE OF FUNDS: [X] CERCLA (1)	5A. EPA SITE NAME: COTA INDUSTRIES INC. 5B. CITY COUNTY ST Des Moines Polk IA 5C. SSID #: 5D. CERCLIS ID:	6. COMPLETION DATE: 12/30/96 7. OVERTIME APPROVED [X] YES [ ] NO	8. REFERENCE INFO: [ ] YES [ ] NO [ ] ATTACHED [X] PICK UP

9A. GENERAL TASK DESCRIPTION: Conduct integrated site assessment with sampling of site. Sampling activities to include drum sampling as needed and exploratory excavation of alleged drum burial area. TDD for subcontract work willbe issued separately.

9B. ESTIMATED COST: $ 4500.00 ESTIMATED HOURS: 100
CUMULATIVE COST: 23375.00 (Cumulative cost/hours includes this amendment) CUMULATIVE HOURS: 450

10. SPECIFIC ELEMENTS:	11. INTERIM DEADLINES:
Accompany OSC to site for site recon and limited sampling	02/07/96
Assess and Document Site Conditions	/ /
Complete Removal Site Evaluation Report	/ /
Complete Site Screening form.	/ /
Complete trip report and data summary	/ /
Conduct exploratory excavation in alleged drum burial area.	/ /
Conduct integrated site assessment.	/ /
Develop QAPP/Sampling Work Plan	/ /
Dispose of all investigation-derived wastes per regulations	/ /
Inventory Drummed/Containerized Wastes	/ /
OSC will determine final report requirements based on data.	/ /

12. DESIRED REPORT FORM: FORMAL REPORT [ ] LETTER REPORT [ ] FORMAL BRIEF [ ]

OTHER (SPECIFY): SSS, RSE, other to be determined

13. COMMENTS: Coordinated field work with P. Doherty
START TDD amended to add hours and extend completion date for exploratory excavation work.

14. AUTHORIZING PO: DOHERTY, PAUL VERBAL DATE: / / Roy Crumbaugh (SIGNATURE)	15. DATE: 09/18/96
16. RECEIVED BY: ~~CHANDLER, JOE~~ Hieu Q. Vu [X] ACCEPTED [ ] ACCEPTED WITH EXCEPTIONS [ ] REJECTED [Y] COI CHECKED - NO APPARENT COI ~~(TATL~~ SIGNATURE)	17. DATE: 09/23/96
18. DESCRIPTOR: START PM	

DISTRIBUTION:

STARTL COPY
DPO ORIGINAL

TDD number : 00-9602-0046C
EPA site name: COTA INDUSTRIES INC.

SPECIFIC ELEMENTS (continued):

10. SPECIFIC ELEMENTS:
Procure suncontract for excavation and/or waste disposal.

11. INTERIM DEADLINES:
/ /

07-9602-046C MARK ROBERTS

IMPORTANT

Cota Drum Work Plan

TDD: T07-9105-039
PAN: EIA-0160-SBA

I. INTRODUCTION

A. Site Location

The Cota Drum site is located at 5512 S.E. 14th St., Des Moines, Polk County, Iowa (Map 1). It is an abandoned coating manufacturing facility formerly known as Cota Industries.

B. Site Description

Cota Industries manufactured industrial paints and coatings, including bonding/acoustic coatings and pool and paint glaze. The plant was in operation from 1961 to circa 1985. The 10-acre property consists of two parking lots and a combined manufacturing building and warehouse, bordered south and west by a large field (Map 2). The site is located in a light industrial/residential area. It is bordered by Southeast 14th Street to the east. An elementary school is located beyond the field to the west while to the south is a residential neighborhood. Two abandoned homes and a small hotel are adjacent to the north. Presently, the site is secured with a fence and the building is boarded up.

The topography around the site is gently rolling and the site drains to the west and north. The site is underlain by glacial deposits. The direction of ground water flow is not known at this time. The depth to water table at the site is not known, but borings taken at other locations in the general area of the site have shown the water table depth to be between 9 and 15 feet.

C. Site History/ Previous Investigations

The site became an environmental concern following a complaint in November 1989 that "leaking chemical drums" had been stored outside the plant. Site inspections conducted by the Iowa Department of Natural Resources (IDNR) confirmed these allegations. Further inspections revealed a disposal area of partially buried drums and other containers extending about 200 feet west of the plant along with an area of discolored soil. The soil was sampled and analytical results revealed elevated levels of mercury (190 mg/Kg) and other heavy metals, including lead (9.4 mg/Kg).

The site received further attention following media coverage of an incident of exposure to contaminants involving several children in March of 1991. After hearing the broadcast, a former employees came forward with additional information concerning the site. He stated that drums were routinely buried on site. Most were empty, but some ranged from full to half full and contained formaldehyde and muriatic acid. In addition, sacks of pigment containing lead and asbestos were buried. The employee also recalled coating wastes being flushed out from the building.

The IDNR requested aid from the Environmental Protection Agency (EPA) Region 7 following the reported incidents. The EPA, in turn, tasked the Ecology and Environment, Inc. Technical Assistance Team (E & E, TAT) to perform a geophysical investigation of the site to locate the buried drums. The geophysical investigation was performed March 21-23, 1991. The results of the investigation revealed a half acre area to the west of the property containing a massive amount of buried metal concentrated in four smaller areas. In addition, the former employee met with EPA and TAT on site and pointed out the open trench in which sacks of asbestos and lead pigment and fiber board drums were buried.

The IDNR again requested the assistance of the EPA in May 1991, after reading the EPA and TAT investigation reports. IDNR requested implementation of the recommendations from these reports.

II. Objectives

A. Objectives or Scope of Field Work

The goal of the proposed work plan is to gather evidence to support a statye lead enforcement case against the potentially responsible parties. Three objectives are set to accomplish this goal (Ref. 1 and 2):

Objective 1. To determine whether buried wastes are present in the anomalous areas identified during the geophysical survey.

Objective 2. To determine whether the burial wastes are hazardous substances.

Objective 3. To determine whether hazardous subsatnces have been released into the environment.

Objectives 1 and 2 will be met by performing an exploratory trenching and sampling operation based on the geophysical survey. The exploratory trenching operation will involve excavating a minimum of three trenches (Map 3) and uncovering solid wastes, soils and drums for sampling. Trenches numbered TR 1 through TR 3 will be excavated first. Drums will be selected, removed and staged for sampling at the discretion of the EPA On-Scene Coordinator (OSC) or TAT. It is anticipated that the operation will take three days to complete. After excavation, the trenches will be secured as directed by the OSC or TAT. Samples will be hazard categorized (HAZCAT) on site and selected for laboratory analysis.

Objective 3 will be met by taking ground water samples along the perimeter and inside the burial area and at the conductive high identified during the geophysical survey at the discretion of the OSC or TAT. The water samples will be taken with the TAT geoprobe. This operation will take one day to complete. The ground water samples will be subjected to laboratory analysis.

B. Concentrations of Concern or Significance

An examination of historical site data and site background characteristics has revealed the contaminants listed below to be of primary concern. The concentrations of concern associated with soils have been established as minimum levels of concern during the course of previous or ongoing removal actions in Region VII. The concentrations of concern associated with groundwater indicate minimum concentrations that may warrant additiona scrutiny; these values are three times the contract required detection limits specified in the Contract Laboratory Program.

Contaminant	Concentrations of Concern	
	Soil (mg/kg)	Groundwater (µg/l)
mercury	> 2	> 0.60
lead	> 250	> 9
cadmium	> 25	> 15
barium		> 600
zinc		> 60
toluene		> 15
xylene		> 15
formaldehyde		> 1
methyl ethyl ketone		> 30

In addition to the above contaminants, there is the possibility of encountering asbestos materials in the exploratory trenches. If a suspected asbestos-bearing material is observed, a sample will be collected and the material will be covered and left undisturbed until an analysis can be performed. Asbestos levels above 1% are considered significant. (Ref. 1)

C. Required Detection Limits

The analytical detection limits will be consistent with methods given in the OSWER Directive SW-846 (Ref. 6) and must be below the action levels as listed in Section II B.

III. Proposed Field Activities

A. Sampling Rationale

1. Sampling Locations

a). Exploratory Trenching

The attached survey map (Map 3) identifies six trenches that are suggested for exploratory excavation; however, because of time constraints not all of these are likely to be excavated at this time nor will any one trench likely be excavated completely. Trenches numbered TR 1 through TR 3 are considered priority, and these will be marked for exploratory trenching. It is not known how deep these will have to be excavated to reveal contamination and/or drums, but all the geophysical evidence and site history suggests shallow burials. It is not anticipated that the trenches will go beyond five feet deep. In the event that they do, they will be shored in accordance with OSHA standards. Grab and composite samples will be collected from each trench excavated. One or more of the other trenches may be excavated at the discretion of the OSC and IDNR.

Prior to excavating, the TAT will flag the trenches, as shown in the site map, and direct the backhoe operator where to dig. A staging area will be designated away from the trench but easily accessible to the backhoe operator. Drum samples will be collected at the staging area.

b). Ground Water Sampling

Maps 2 and 3 identifies nine ground water sampling locations, GW1 through GW6. No more than nine ground water samples will be taken upon completion of the trenching operation using the TAT geoprobe. Depth to the water table at each location will be determined as accurately as possible. A maximum of three samples will be taken along the perimeter of the burial area, one will be taken inside the disposal area, and one may be taken at the conductive high and one may be taken for background.

2. Sample Types

a). Trench samples (Grabs and Composites)

1) Grabs: Samples of obviously contaminated soils or solid to semisolid wastes either insitu or from the spoil.

2) Composites: Samples of soil from the bottom of the trench or at discrete intervals at the discretion of the OSC or TAT

At this time, it is estimated that three grab samples and three composites will be taken from each of the three trenches. The samples will be split among three to four jars. One will be for hazcatting, and the other two or three for laboratory analysis, depending on whether asbestos will be included in the analysis. One duplicate sample will be taken for quality control for each 10 samples taken.

After the trench is excavated or partially excavated, the contents of the trench and the spoil pile will be checked for contamination. At the direction of the TAT team leader or OSC, the sampler will either take an insitu sample from the trench, or sample observed contamination from the spoil pile. The sampler will collect the sample (either a composite or a grab) in aluminum piepans and will set pan on visqueen, where it will be homogenized, split among three to four 8 oz jars, and labeled. One will be used for HAZCAT, and the remaining two to three sent for laboratory analysis, each representing a different parameter. The third jar will be taken if asbestos is to be included in the analysis. This will be decided on a case by case basis by the OSC or TAT.

b). Drum sampling

Drums and drum and sludge pieces will be staged by the backhoe operator and laborer on visqueen plastic between the trench and the decontamination area. Samplers will use level B protection around intact drums when opening, using instrumentation, and when sampling, as deemed appropriate. If need be, intact drums will be pierced by the operator using a non-sparking spike, as directed by the OSC or E & E. Samplers will be ready with bung wrenches to open intact drums. After drums are opened, readings will be taken with an explosimeter, and Hnu or OVA. An OVA will be used to monitor the air quality around samples laid on the visqueen.

It is not known how many intact drums will be unearthed. It is anticipated that the vast majority of drums encountered will be found crushed and empty. It will be assumed that no more than 10 drums will be sampled to meet Objectives 1 and 2 of the exploratory operation. One duplicate will be taken for quality control.

Drums will be staged and sampled in the following manner:

1. Drums and drum pieces and sludge will be numbered using marking paint at their staged positions on the visqueen in the designated area. Photographs will be taken of each drum and drum fragment.

2. Loose sludge and drum debris will be sampled using spoons and piepans. Before sampling, readings with the Hnu and OVA will be taken.

3. Drums will be opened to release any compressed gas, either by by using a non-sparking bung wrench or by piercing with a non-sparking spike.

4. After a drum is opened, readings will be taken with the explosimeter and Hnu

5. Drum lids will be opened using a non-sparking crescent wrench.

6. Intact-drum samples will be taken using a large spoon, or, if waste sludge has hardened, samples will be scraped off using a stiff putty knife.

7. If there is an appreciable amount of liquid in the drum, a thieving rod will be used.

8. Drum samples will be split among three to four 8-ounze jars. One will be designated for HAZCAT, the other three for laboratory analysis, with each representing a different parameter. The third jar will be taken if the sample will be analyzed for asbestos, as determined on a case by case basis by the OSC or TAT.

9. Two 40 ml VOAs will be taken from each drum for volatile organic analysis.

Note: IDNR will make arrangements for the temporary storage of excavated drums and drum fragments pending the receipt of the analytical data.

c). Ground Water Samples

Ground water samples will be taken at a maximum of six designated locations shown on Maps 2 and 3, numbered GW1 through GW6. The TAT Geoprobe will be utilized in this operation. A maximum of three samples will be taken near the perimeter of the burial area and one will be taken inside the burial area. One may be taken at the high conductivity area and one may be taken upslope from the burial area a considerable distance as a background sample. One duplicate will be taken for quality control and a field blank will be provided.

B. Decontamination Procedures

Sampling tools will be scrubbed in an Alconox solution, and given a thorough water and alcohol rinse subsequent to each sampling event, including the soil borings. Gloves will be deconned in a like manner. The backhoe shovel will be scrubbed and hot water pressure cleaned subsequent to each trenching operation. All disposable PPE and hot trash will be placed in 55 gallon drums, marked, sealed, and left on site for eventual disposal.

C. Sample Specifics

1) Sample number estimate:

a. soil and sludge grabs:	- 9	
b. soil composites:	- 9	
c. drums:	- 10	
d. ground water	- 6	
subtotal	- 34	
d. duplicates	- 1	water
	- 2	soil and sludge
	- 1	drum
total	- 38	

Each grab and drum sample will be split three to four ways, two to three designated for laboratory analysis (three only if sample is to be analyzed for asbestos), and the other for HAZCAT. Each water sample will be split three ways for laboratory analysis. A contract lab has not been assigned yet.

2) Sample containers per each:

a. grab samples and composite samples:	three to four 8-oz wide mouth jars and two 40 ml VOA viles each sample
b. drum samples:	three to four 8-oz wide mouth jars and two 40 ml VOA vile

c. water samples: one 80-oz glass amber jug, one 1-liter polyethylene cubitainer and two 40 ml VOA vials

3) Laboratory analysis parameters:

Samples sent to the lab will be analyzed for the following parameters:

BNA
VOAs
Total metals (+ TCLP if total metal data indicate)
Asbestos fibers (selected soil or sludge samples only)

4) HAZCAT:

Samples taken from the trench, including drums will undergo an initial field hazardous categorization. The results of the field tests may be used to indicate which samples will be submitted to the designated lab.

5) Sample Containers/Preservatives/Holding Times:

Matrix	Parameter	Container	Preservative	Holding Time
DS/DL/S	BNA	8 oz glass	4° C	7/40 d
W		80 oz amber	4° C	7/40 d
DS/DL/S/W	VOA	2-40 ml vial	4° C	7/40 d
DS/DL/S	Total metals	8 oz glass	4° C	6 mos
W		1-liter poly	4° C, NHO_3 to pH <2	6 mos
DS/S	Asbestos fibers	8 oz glass	4° C	N/A

Explanation: S - soil or solid, DS - drum solid, DL - drum liquid
W - water

6) Sample Handling

Samples will be appropriately packed to meet DOT requirements and placed in coolers iced to 4° C prior to shipping to the contract laboratory.

7) Sample Analytical Methods

Matrix	Analytical Parameter	Method Ref. (Ref. 3)
Solid*	BNA	8250 or 8270/SW-846
Water		625/CLP
Solid	Total Metals	SW-846
Water		EPA-600/CFR 40
Solid	VOA	8240/SW-846
Water		624/CLP
Solid	Asbestos fiber	to be determined

* includes all soils and sludges, drum liquid unknown

V. LOGISTICS

A. Personnel Requirements

Two TAT members will be required to perform the following operations July 15-17 (3 days):

1) Team leader, sampling
2) Site Safety, HAZCAT

Three TAT members will be required on June 18 to perform and assist in the following operations.

1) Team leader, sampling
2) Site safety, sampling
3) Geoprobe operator

An operator and laborer to perform the exploratory trenching will be provided by the subcontractor

B. Equipment Requirements

1. For sampling

- piepan and soup spoons, surface samples
- large serving spoons and pie pans, trench and drum samples
- stiff Putty knives, trench and drum samples
- thieving rods, drum samples, water samples
- sample labels
- 8-oz jars
- 40 ml VOA vials
- 80-oz amber glass jugs
- 1-liter cubitainers
- OVA and Hnu instruments to monitor air quality

2. For air quality monitoring

- Organic Vapor Analyzer (OVA)
- Hnu photo-ionization detector
- explosimeter/oxygen level indicator

3. PPE

a) Protective clothing

- Saranex
- surgical gloves
- latex gloves (or equivalent) for soil and trench samples
- butyl rubber outer gloves (or equivalent) for sampling drums
- duct tape to cover exposed areas
- rubber aprons for drum sampling and opening (available if needed)
- steel toed rubber boots

b) respiratory protection

- Ultra-twin w/ GMA-H cartridges
- Racal w/ AP3 cartridge
- Ultralite SCBA (on standby)

4. Other

- MAC51B magnetic and cable locator
- EM-31 terrain conductivity meter
- Geoprobe to perform boring sampling
- equipment to perform exploratory trenching will be provided by the subcontractor

C. SCHEDULING AND TIME REQUIREMENTS

The exploratory trenching and sampling operation will commence at 0800, July 15, 1991. TAT will arrive at 0700 on July 15, 1991 to set up and mark the trenches. The trenching operation is scheduled to end at 1700 hours, July 17, 1991.

The boring operation will begin at 0800, Thursday, July 18, 1991 and end at 1700 the same day.

Approximately 250 hours will be charged by TAT for this operation.

D. SITE ACCESS

Site access can be gained through the IDNR's attorneys at a 12 hour notice. Ron Kozel from the IDNR will make all necessary arrangements to gain access to the site and the adjacent property.

E. MEDIA/PUBLIC INQUIRIES

It is anticipated that this site will receive considerable news media coverage. All inquiries will be directed to Ron Kozel of the IDNR, Matt Woody of the Des Moines Fire Department, or the EPA OSC.

ATTACHMENTS

References

Site Maps 1-3

Site Safety Plan

REFERENCES

1. Trip Report: Cota Industries, Des Moines, IA, EPA/REGION 7, April 25, 1991, Wood Ramsey OSC.

2. Investigation Report: Cota Industries, Inc. Site, IDNR, March 19, 1990.

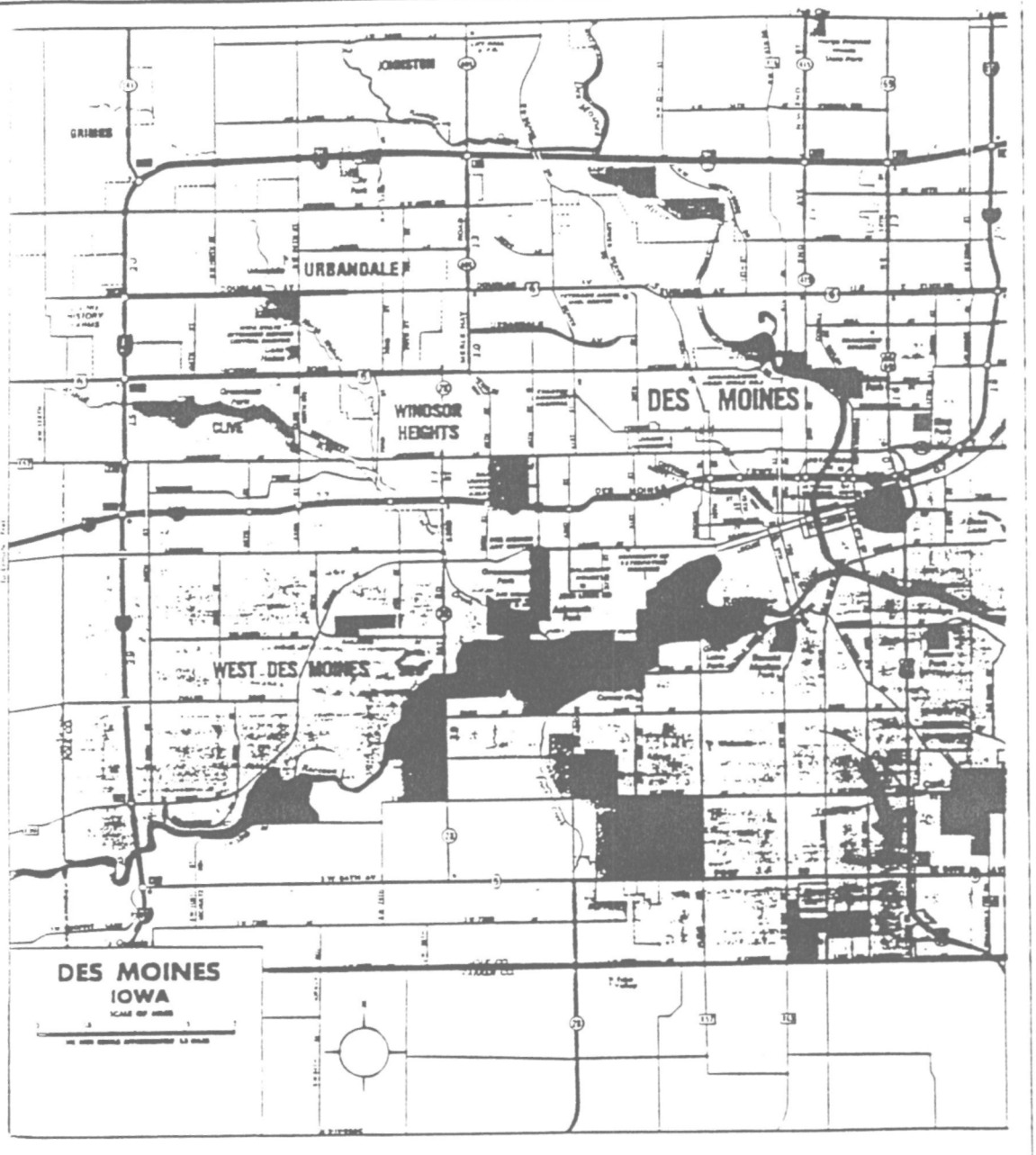
3. Quality Assurance/Quality Control Guidance for Response Action: Sampling QA/QC Plan and Data Validation Procedures, EPA/540/OSWER Directive 9360.4-01

4. TAT Letter Report: Site Assessment: Geophysical Survey, Cota Drums, Des Moines, Iowa, E & E/TAT April 22, 1991, TDD# T07-9103-028, PAN# EIA-0160-SAA

5. Update to Numeric Action Levels for Contaminated Drinking Water Sites, EPA memorandum, April 8, 1991.

6. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, SW-846, Test Methods for Evaluating Solid Waste, November, 1986, Washington, D.C.

07-9602-046C



COTA DRUM SITE

SITE LOCATOR MAP

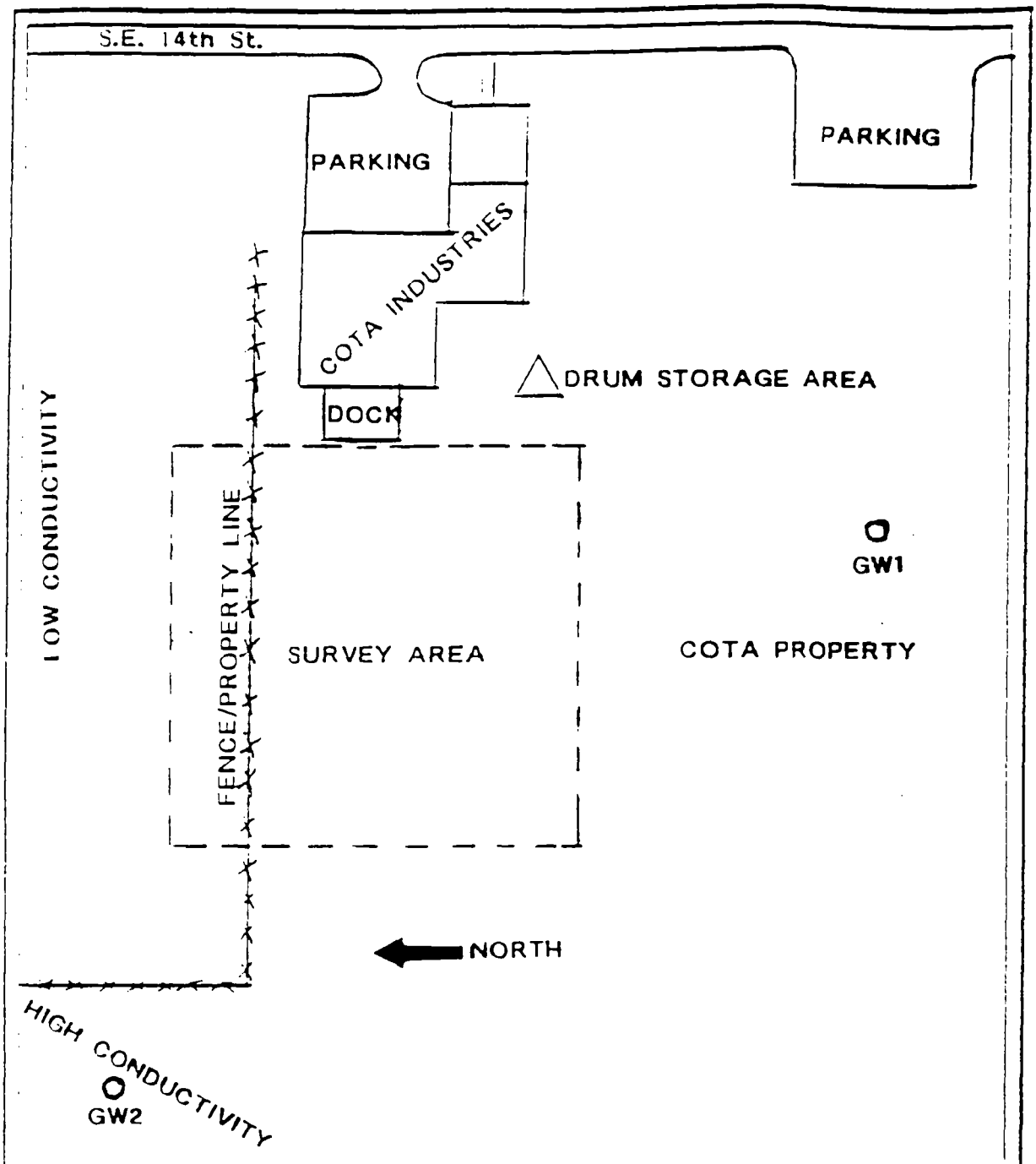
5512 S.E. 14th St.

T07-9105-039

MAP 1

EIA-0160-SBA

07-9602-046C



COTA DRUM SITE

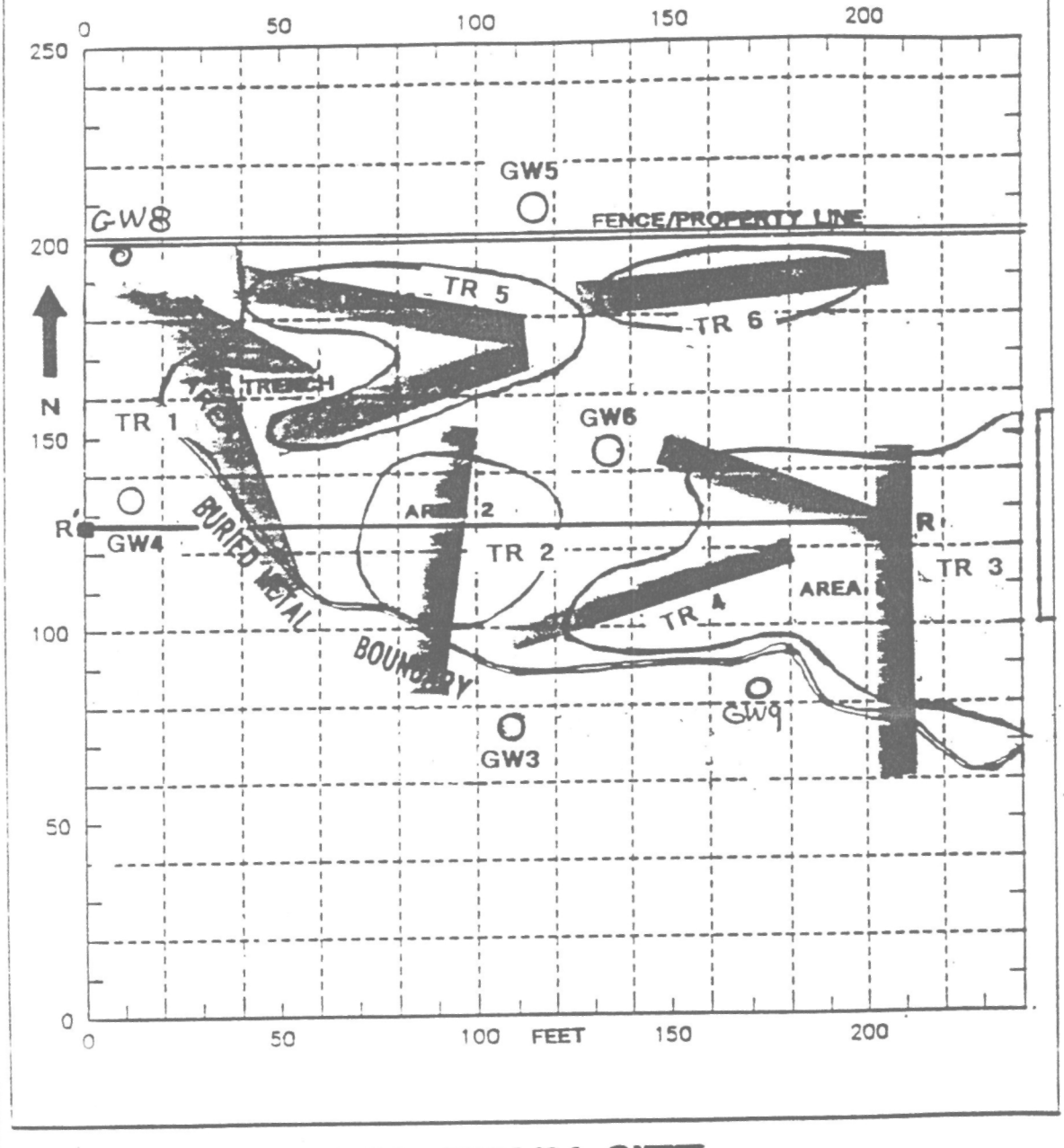
SITE SKETCH MAP

T07-9105-039

MAP 2

EIA-0160-SBA

07-9602-046C



COTA DRUM SITE

EXPLORATORY TRENCHING LOCATIONS

T07-9105-039

MAP 3

EIA-0160-SBA

population totals 07-9602-046C

0 - 1/4 = 135 × 2.47 = 333

1/4 - 1/2 = 358 × 2.47 = 884 + 257 = 1141

1/2 - 1 = 2432

1 - 2 = 1521

2 - 3 = 15,783

3 - 4 = 14,746

4
25
17
47
21
48
20
18
101
45
54

3893
135
+ retirement home

×2.47
358 + retirement home

884 + 257 = 1141

60
93
48
56
257

Anda 500
1994 Tex Kenelgade
1991

07-9602-046C

12

~~15~~ 11

private wells used domestic/livestock

Private ~~wells~~ ~~15~~ 11 within 4-mile radius

nearest well = David Moede

T77N, R24W, NE 1/4 of the NW 1/4 of Section 10

Depth 30.0 ft.

Approx 2.5 miles south-southwest of the site

? Municipal Well locations

- Repository info for the two locations near the site
- Request from BOWDEN

L. L. Wilson = T.D. = 435' ; SWL = 135

~~KUCHARO CONSTRUCTION CO. DRIVE IN~~ = T.D. 657 ; SWL = 200'

★ Municipal water users ★

City of Berwick - Berwick Water Assoc. - 266-8668	WINDSOR HEIGHTS - 279-3662
Clive - water dept 223-6220	
Cumming - water dist ~~203-8722~~ 981-~~4233~~ 9214 Pam Danley	XENIA Rural Water ~~District~~ Association, Inc - in Woodward 438-2944
Johnston - 278-2344	
Norwalk - Alice HH 2126 resident - 53 / 2073 981-4281	
Pleasant Hill - 262-9368 Ruth ~~262-9465~~	
left message 2 — Polk Co. Rural Water district No. 1 = ~~289-1509~~ Clif Vanderpool ~~286-3376~~	
Southeast Polk Rural Water District = 262-8581	
Urbandale - 278-3940	
Warren Rural Water District = 981-4562 Warren Water Fac	Warren - x 5-10 90 (Polk - Madison)
Waukee - 987-4522	
West Desmoines - ~~222-3450~~ 222-3460 2 11315 175 res. 11,140	

07-9602-046C

12

Private [illegible] 1~~8~~ within 4-mile radius — private wells ~~used~~ domestic & for domestic/livestock

nearest well = David Moede

T77N, R24W, NE 1/4 of the NW 1/4 of Section 10

Depth 30.0 ft.

Approx 2.5 miles south-southwest of the site

? Municipal Well locations

- Repository info for the two locations near the site
- Request from BOWDEN
- L. L. Wilson = T.D. = 435', SWL = 135
- ~~KUCHARO CONSTRUCTION CO. DRIVE IN~~ = T.D. = 657', SWL = 200'

★ Municipal Water Users ★

* City of Berwick - Berwick Water Assoc. - 266-8668	* WINDSOR HEIGHTS - 279-3662
* Clive - water dept 223-6220	
* Cumming - water dist 981-~~4233~~ 9214 Pam Danley ~~283-8722~~	* XENIA Rural Water ~~District~~ Association, Inc - in Woodward 438-2944
* Johnston - 278-2344	
* Norwalk - Alice HH 2126 residents 981-4281	
* Pleasant Hill - 53 / 2073 - 262-9368 Ruth ~~262-9465~~	
left message 2 — Polk Co. Rural Water district No. 1 = ~~287-1509~~ Clat... Underpool 3 ~~286-3376~~	
* Southeast Polk Rural Water District = 262-8581	
* Urbandale - 278-3940	
* Warren Rural Water District = 981-4562 Warren Water Fac	Warren 25,010 90 (Polk - Madison)
* Waukee - 987-4522	
* West Desmoines - 222-3460 ~~222-3460~~ 11315 2 / 175 res.	

07-9602-046C

ecology and environment, inc.
CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432-9961
International Specialists in the Environment

February 22, 1996

John Fleckenstein
Bureau of Preserves & Ecological Services
Wallace State Office Building
Des Moines, Iowa 50319

Dear Mr. Fleckenstein:

I am conducting a preliminary assessment of the Cota Industries site located at 5512 SE 14th Street, Des Moines, Iowa. This letter serves as a written request for information pertaining to the occurrence of any environmentally sensitive areas (including endangered species) within a 4-mile radius of the site. The geogrphic coordinates of the site are 41° 31' 59.6" N latitude and 93° 35' 48.8 W longitude. It is located within section 27, Township 78 N, and Range 24 W.

Please include any data detailing the presence of fisheries, wetlands,or other sensitive environments occurring within a 15 mile downstream segment of the site. Although the site appears to drain into Easter Lake, the lake in turn drains into the Des Moines River. My estimated distance of the surface water drainage from the site to the Des Moines River is approximately eight miles, therefore if you could search downstream of that point approximately 7-8 miles I think it would provide adequate coverage.

Thank you very much for your assistance with this matter. If you should have any questions or need any clarification please feel free to call me at (913) 432-9961, or Fax # (913) 432-0670.

Sincerely,

Buck Brooks

Buck Brooks
Ecology & Environment, Inc.

07-9602-046C

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

TRANSMITTAL FORM

TO: Buck Brooks
Ecology and Environment
Cloverleaf Bldg. III, Suite 404
6405 Metcalf
Overland Park, Kansas 66202

FROM: Ron Kazel
Emergency Response
Phone: (515) 281-8833
DATE: 8/26/96

Enclosed or attached is the following:

No.	Description
1	Report of Investigation about Cota From Al Lemke
1	Report of RCRA Inspection at Cota
1	Hazardous Substance Incident Report on Cota
2	Memos From MarkLanda and Report From DNRFD

✓ **For your information and use** ___ **Necessary action**

✓ **As requested** ___ **Please return**

___ **Review and comment** ___ **As noted below**

REMARKS: Buck: Let me know if you need anything else.

Ron

Printed on Recycled Paper

542-0926

07-9602-046C

IOWA DEPARTMENT OF NATURAL RESOURCES
Legal Services Bureau

DATE: April 5, 1991

TO: Mike Murphy
Al Stokes
Ron Kozel

FROM: Mark Landa

SUBJECT: Cota Industries

I spoke with Jim Coleman on April 4, 1991. He is currently working at the Alcoholic Beverage Division of the Department of Commerce. His number is 1-7410.

He worked for Cota Industries for about a year from 1973-1974. He was one of the only employees at that time who was responsible for mixing the various products which were manufactured at this facility.

Contrary to what I have been told by Mr. Cota and Ms Stubbe, Mr. Coleman remembers that off-spec. paints or wall coverings, excess paint products, tints and raw materials such as formaldehyde,epoxiesand ethylene glycol were dumped on the property. Every year, he stated, the company would gather all old materials and products and dump them out back and bury them. The liquids would be in 55 gallon drums, five and one gallon pails and fiber drums. It was also common to dump solvents while working and cleaning equipment.

The mixing tanks, some of which were 300-400 gallons capacity, were washed out with water into a floor drain which discharged onto the property. The washing process would take up to a half hour.

Formaldehyde was transported to the facility in a bulk truck. It was dispensed from the truck into 55 gallon drums. It was used and disposed of indiscriminantly.

Coleman also stated that Cota has owned a home on a lake near Des Moines, a condo at Park Placeon Fleur and was a member of the Wakonda Country Club.

07-9602-046C

IOWA DEPARTMENT OF NATURAL RESOURCES
Legal Services Bureau

DATE: April 5, 1991

TO: Mike Murphy
Al Stokes
Ron Kozel

FROM: Mark Landa

SUBJECT: Cota Industries

I spoke with Dave Evans who is working in the Energy Division. He was employed at Cota for one summer, about three months, in 1973. He was also responsible for mixing products. He worked at the sametime as Coleman.

He told me the same story as Coleman. The company never took anything to the landfill. Everything was dumped out back. On one occassion Ken Cota told Evans and others to clean out the building, taking old paint, chemicals, epoxies and off-spec paint. They took the containers out to the back of the property and dumped it.

He said that the company used a tank which held 300 - 400 gallons to mix all liquid products and that after each batch was mixed the tank was rinsed into a drain which discharged onto the property. The tank was used to mix two or three batches of product a day.

Asbestos was used and was purchased in a powder form in bags. The bags were opened and dumped into the tank. When the air got too thick with dust a fan was turned on and the inside air was forced outside. As with other products, the tank was rinsed with water after the batch was removed.

Cota had a home at Lake Wood which had an indoor swimming pool.

07-9602-046C

ecology and environment, inc.

EXISTING SITE SAFETY PLAN ADDENDUM FORM

Site Name: › CoTA Drum Site TDD/PAN/Proj. No:› S07-9602-046C/0096CISCXX

Date of orginal SSP:› 7-9-91

Date of amendment:› 10-16-96

Date of proposed new work:› 11-4-96

Added activities and hazard evalutions:› No new activities or hazards have › been identified at the site. Site activities will be the same as › outlined in the original SSP except that geoprobe sampling will › not be undertaken during this activity.

›

›

Added monitoring activities: › No additional monitoring activities have been › added.

›

Level of protection: › ___ A › ___ B › ___ C › ___ D

Reason for up/downgrading: ›

PPE: ›

›

›

Decon: ›

›

Team Members	Responsiblity
› Buck Brooks	› Team Leader
› Lynn Parman	› Marcat / Sampler
›	›
›	›

Equipment	Quantity	Equipment	Quanity
›	›	›	›
›	›	›	›
›	›	›	›
›	›	›	›

THE TERMS OF THE ORGINAL SSP SHALL BE IN EFFECT EXCEPT AS NOTED ON THIS FORM.

Prepared by: › Buck Brooks Date: › 10/23/96

Reviewed by: › [signature] Date: › 10/25/96

INSTRUCTIONS: This form to be approved through normal channels and attached to orginal plan. Form SSP-A

TDD File

522

ecology and environment, inc.

SITE SAFETY PLAN

Version 988

A. GENERAL INFORMATION

Project Title: Cota Drum
Project No.: ZT1071
TDD/Pan No.: T07-9105-039/EIA 0160 58A
Project Manager: Joe Parish
Project Dir.: Joe Chandler, TATL
Location(s): Des Moines, Polk County, Iowa 5512 S.E. 14th St.
Prepared by: Dave Kinroth
Date Prepared: 7-9-91
Approval by: Dave Tyson
Date Approved: Verbal 7-15-91 ; 7-16-91
Site Safety Officer Review:
Date Reviewed:
Scope/Objective of Work: ① Exploratory Trenching and sampling of soil and spilled product; ② Water Sampling with Geoprobe; ③ Drum Sampling and Hazcat of products
Proposed Date of Field Activities: 7-15-91
Background Info: Complete: [✓] Preliminary (No analytical data available) [ ]

Documentation/Summary:

Overall Chemical Hazard:	Serious [ ]	Low [ ]	Moderate [✓]	Unknown [ ]
Overall Physical Hazard	Serious [ ]	Low [ ]	Moderate [✓]	Unknown [ ]

B. SITE/WASTE CHARACTERISTICS

Waste Type(s):

Liquid	[✓]	Solid	[✓]	Sludge	[✓]	Gas/Vapor	[ ]

Characteristic(s):

Flammable/ Ignitable	[ ]	Volatile	[✓]	Corrosive	[✓]	Acutely Toxic	[ ]
Explosive	[ ]	Reactive	[ ]	Carcinogen	[✓]	Radioactive*	[ ]

Other: Probable unknowns.

Physical Hazards:

Overhead	[✓]	Confined* Space	[ ]	Below Grade	[✓]	Trip/Fall	[✓]
Puncture	[ ]	Burn	[ ]	Cut	[✓]	Splash	[✓]
Noise	[✓] possibly	Other:	Heat stress; heavy equipment use; excavation.				

*Requires completion of additional form and special approval from the Corporate Health/Safety group. Contact RSC or HQ.

Site History/Description and Unusual Features (see Sampling Plan for detailed description): Manufactured industrial paints & coatings - Known leaking drums in past - former employee said drums were routinely buried on site.

Locations of Chemicals/Wastes: Buried Drums near surface in short trenches. Wastes alleged to have been washed out into soil.

Estimated Volume of Chemicals/Wastes: Unknown

Site Currently in Operation Yes: [ ] No: [✓]

C. HAZARD EVALUATION

List Hazards by Task (i.e., drum sampling, drilling, etc.) and number them. (Task numbers are cross-referenced in Section D)

Physical Hazard Evaluation:

① Trenching / Sampling in trenches - possible overhead hazard, noise, belowgra
Trip-fall

② Water Sampling with Geoprobe - Splash

③ Drum Sampling + Hazcat - Splash, cut

Chemical Hazard Evaluation: See Workplan page 5 for other Contaminants of Concern

Compound	PEL/TWA	Route of Exposure	Acute Symptoms	Odor Threshold	Odor Description
Mercury	.05 mg/m³	Inh, Abs, Con	Cough, Chest Pain	odorless	N/A
Lead	.05 mg/m³	Inh, Ing, Con	Weakness, Abdominal pain	"	"
Formaldehyde	1 ppm	Inh, Ing, Con	Irritated eyes, pungent, suffocating	0.8 ppm	
Muriatic Acid	HCl 5 ppm	Inh, Ing, Con	Inflammed nose, throat irritating, pungent		
Asbestos	0.2 fibers/cm³	Inh, Ing	Dyspnea, Fibrosis	N/A	odorless
Coating Wastes					

Note: Complete and attach a Hazard Evaluation Sheet for major known contaminant. See attachments.

D. SITE SAFETY WORK PLAN

Site Control: Attach map, use back of this page, or sketch of site showing hot zone, contamination reduction, zone, etc.

Perimeter identified? [✓] Site secured? [✓] - Partially

Work Areas Designated? [✓] Zone(s) of Contamination Identified? [✓] - Partially

Personnel Protection (TLD badges required for all field personnel):

Anticipated Level of Protection (Cross-reference task numbers to Section C):

	A	B	C	D
Task 1			X	
Task 2				X
Task 3		X		
Task 4				

(Expand if necessary)

Modifications: Hazcatting Level D - Hold samples down wind when handling Gloves, Tyvek; Upgrade to Level C with APR and GMA-H cartridges on tests possibly causing reactivity.

Action Levels for Evacuation of Work Zone Pending Reassessment of Conditions:

- Level D: O_2 <19.5% or >25%, explosive atmosphere >10% LEL, organic vapors above background levels, particulates >_____ mg/m^3, other _____.
- Level C: O_2 <19.5% or >25%, explosive atmosphere >25% LEL_3 (California-20%), unknown organic vapor (in breathing zone) >5 ppm, particulates >_____ mg/m^3, other _____.
- Level B: O_2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors (in breathing zone) >500 ppm, particulates >_____ mg/m^3, other _____.
- Level A: O_2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors >500 ppm, particulates >_____ mg/m^3, other _____.

Air Monitoring (daily calibration unless otherwise noted):

Contaminant of Interest	Type of Sample (area, personal)	Monitoring Equipment	Frequency of Sampling
Organic Vapors	area, drums	OVA, HNU	Upon Opening & Hazcatting
Explosive Atmosphere	"	MSA 260	"

(Expand if necessary)

Decontamination Solutions and Procedures for Equipment, Sampling Gear, etc.:

As specified in workplan - page 8

Wash respirator face mask with MSA sanitizer and warm water upon conclusion of each daily use. Wipe instruments/monitoring equipment clean with wet cloth.

Personnel Decon Protocol: Dry Decon. Wash hands and face prior to breaks. Shower upon return to hotel.

Decon Solution Monitoring Procedures, if Applicable: N/A

Special Site Equipment, Facilities, or Procedures (Sanitary Facilities and Lighting Must Meet 29 CFR 1910.120):

If trenches go deeper than 5 feet they must be shored in accordance with OSHA Standards.

Site Entry Procedures and Special Considerations: Buddy system to be utilized. Remain upwind whenever possible.

Work Limitations (time of day, weather conditions, etc.) and Heat/Cold Stress Requirements:

Try to work in cooler parts of day - morning, evening. Heat Stress will likely be a factor. Observe periodic breaks and have electrolyte replacement fluids available.

General Spill Control, if applicable: Drum Sampling - Sorbent Pads.

Investigation-Derived Material Disposal (i.e., expendables, decon waste, cuttings):

Bagged, drummed, left on site for future disposal.

Sample Handling Procedures Including Protective Wear:

TyvekK/SaranexX
Latex inner gloves
Vinyl Outer Gloves

Team Member*	Responsibility
Joe Parish	Team Leader/Sampler/Documentation
Dave Kinroth	Site Safety Officer/Sampler/Hazcat
Randy Schademann	Geoprobe Operator
Subcontractor	Trenching

*All entries into exclusion zone require Buddy System use. All E & E field staff participate in medical monitoring program and have completed applicable training per 29 CFR 1910.120. Respiratory protection program meets requirements of 29 CFR 1910.134, and ANSI Z88.2 (1980).

E. EMERGENCY INFORMATION

(Use supplemental sheets, if necessary)

LOCAL RESOURCES

(Obtain a local telephone book from your hotel, if possible)

Ambulance 911

Hospital Emergency Room 515-263-4200 Des Moines General Hospital

Poison Control Center 1-800-362-2327 Blank Memorial Hospital Des Moine

Police (include local, county sheriff, state) 911

Fire Department 911

Airport N/A

Agency Contact (EPA, State, Local USCG, etc.) Paul Doherty EPA site manager (913) 551-7924

Local Laboratory N/A

UPS/Fed. Express Fed-Ex 1-800-238-5355

Client/EPA Contact Paul Doherty 913-551-7924 EPA Site Manager

Site Contact Ron Kozel, IDNR or Matt Woody, DMFD

SITE RESOURCES

Site Emergency Evacuation Alarm Method 3 short blasts - vehicle horn

Water Supply Source Carried in to site

Telephone Location, Number None

Cellular Phone, if available None

Radio N/A

Other

EMERGENCY CONTACTS

1. Dr. Raymond Harbison (Univ. of Florida) ..... (501) 221-0465 or (904) 462-3277, 3281
   Alachua, Florida (501) 370-8263 (24 hours)

2. Ecology and Environment, Inc., Safety Director
   Paul Jonmaire ..... (716) 684-8060 (office)
   (716) 655-1260 (home)

3. Regional Office Contact .....Sybil Newchurch, RSC... (913)385-0811 (home)
   (913)432-9961 (office)

4. START Program Manager ....Hien Yu..... (913) 764-5073 (home)

MEDTOX HOTLINE

1. Twenty-four hour answering service: (501) 370-8263

   What to report:

   - State: "this is an emergency."
   - Your name, region, and site.
   - Telephone number to reach you.
   - Your location.
   - Name of person injured or exposed.
   - Nature of emergency.
   - Action taken.

2. A toxicologist, (Drs. Raymond Harbison or associate) will contact you. Repeat the information given to the answering service.

3. If a toxicologist does not return your call within 15 minutes, call the following persons in order until contact is made:

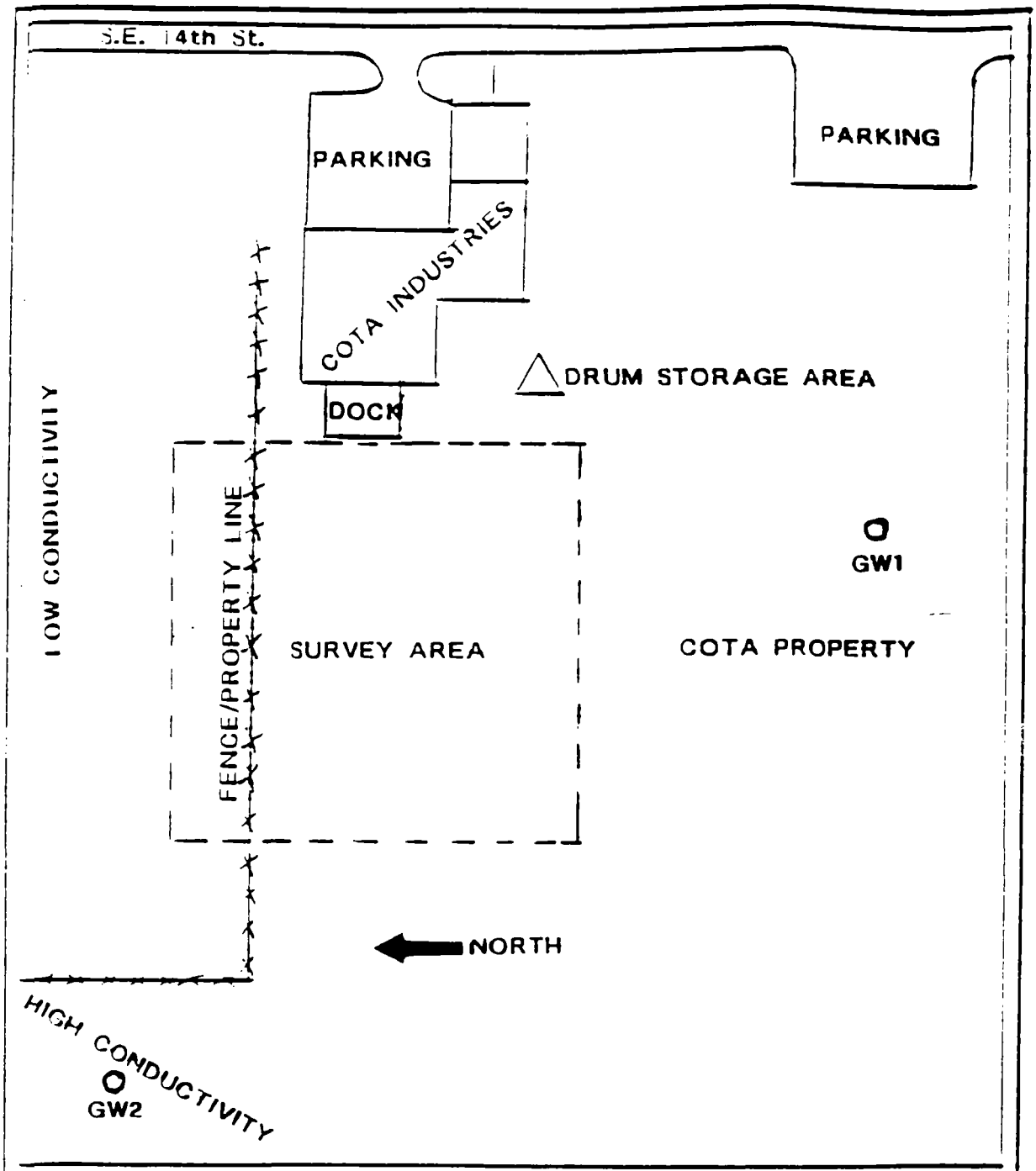
   a. **24 hour hotline - (716) 684-8940**
   b. Corporate Safety Director - Paul Jonmaire - home # (716) 655-1260
   c. Assistant Corp. Safety Officer - Steven Sherman - home # (716) 688-0084

EMERGENCY ROUTES

(NOTE: Field Team must Know Route(s) Prior to Start of Work)

Directions to hospital (include map) Des Moines General Hospital
North on E 14th St. to Grand, West on Grand to E 8th & Grand.

Emergency Egress Routes to Get Off-Site Determine prior to site work.



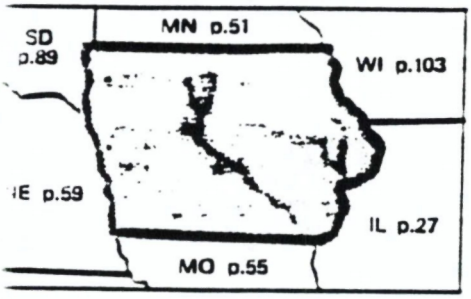
COTA DRUM SITE

SITE SKETCH MAP

T07-9105-039

MAP 2

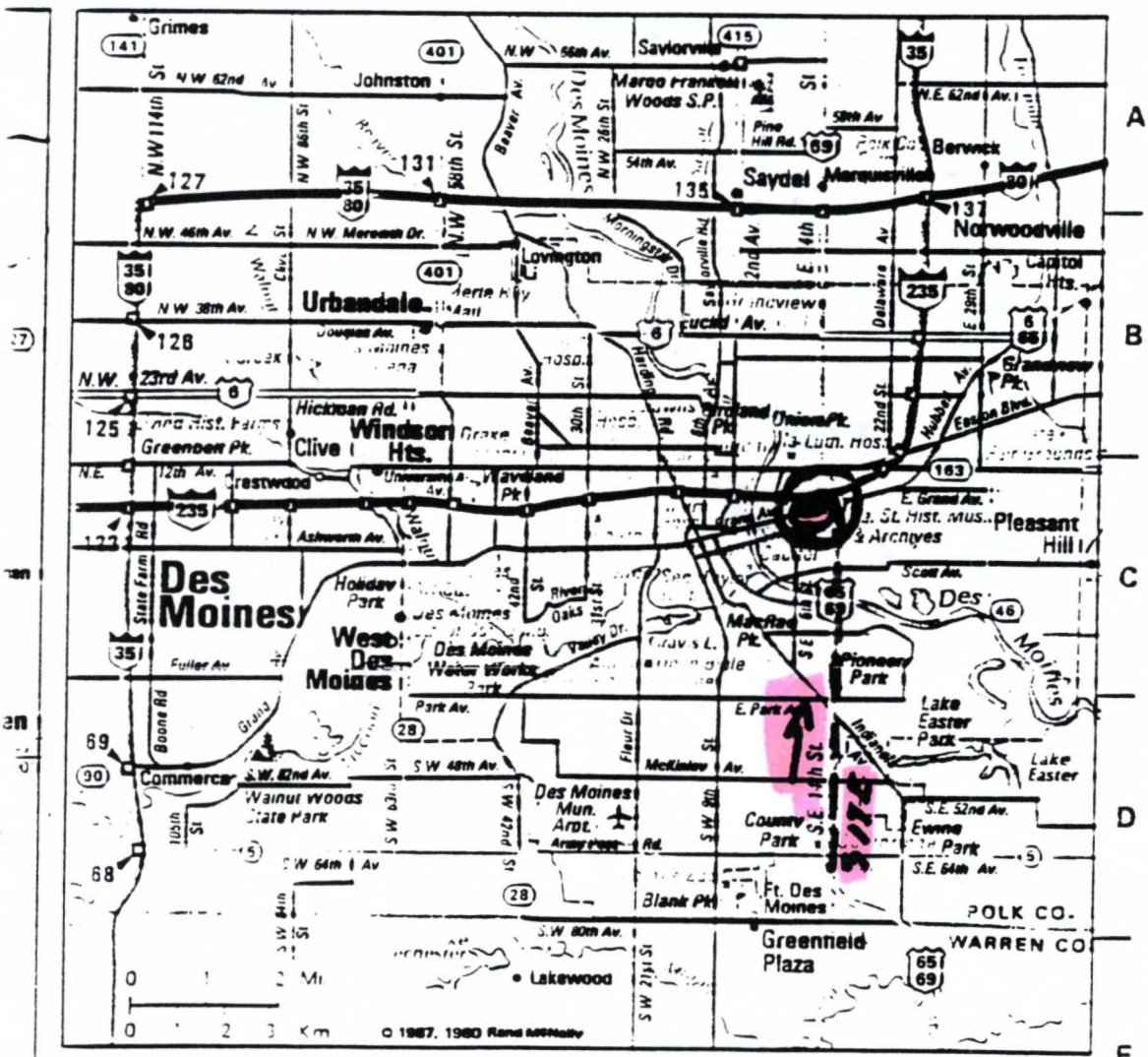
EIA-0160-SBA

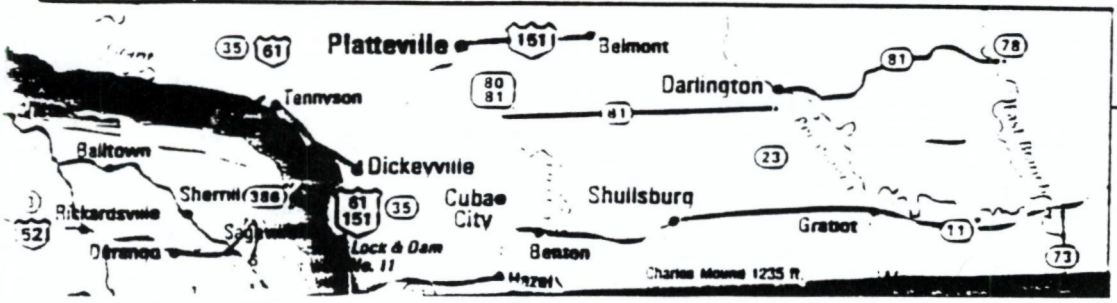


Iowa 33

Land Area: 55,965 sq. mi. (23)
Population: 2,913,808 (27)
Dimensions: N-S 205 miles, E-W 310 miles
Highest Point: (unnamed) 1,670 ft., B-5
Capital: Des Moines, K-12 ★
Largest City: Des Moines, K-12

Index page 122





F. EQUIPMENT CHECKLIST

PROTECTIVE GEAR

Level A	No.	Level B	No.
SCBA		SCBA	✓
SPARE AIR TANKS		SPARE AIR TANKS	✓
ENCAPSULATING SUIT (Type _____)		PROTECTIVE COVERALL (Type Saranex)	
SURGICAL GLOVES		RAIN SUIT	
NEOPRENE SAFETY BOOTS		BUTYL APRON	
BOOTIES		SURGICAL GLOVES	✓
GLOVES (Type _____)		GLOVES (Type Latex; Butyl)	✓
OUTER WORK GLOVES		OUTER WORK GLOVES	
HARD HAT		NEOPRENE SAFETY BOOTS	✓
CASCADE SYSTEM		BOOTIES	✓
5-MINUTE ESCAPE COOLING VEST		HARD HAT WITH FACE SHIELD	✓
		CASCADE SYSTEM	
		MANIFOLD SYSTEM	
Level C		**Level D**	
ULTRA-TWIN RESPIRATOR	✓	ULTRA-TWIN RESPIRATOR (Available)	✓
POWER AIR PURIFYING RESPIRATOR		CARTRIDGES (Type GMA-H)	✓
CARTRIDGES (Type GMA-H)	✓	5-MINUTE ESCAPE MASK (Available)	
5-MINUTE ESCAPE MASK		PROTECTIVE COVERALL (Type TyveK)	✓
PROTECTIVE COVERALL (Type TyveK)	✓	RAIN SUIT	
RAIN SUIT		NEOPRENE SAFETY BONDS	✓
BUTYL APRON		BOOTIES	✓
SURGICAL GLOVES	✓	WORK GLOVES	✓
GLOVES (Type Latex)	✓	HARD HAT WITH FACE SHIELD	✓
OUTER WORK GLOVES		SAFETY GLASSES	✓
NEOPRENE SAFETY BOOTS	✓		
HARD HAT WITH FACE SHIELD	✓		
BOOTIES	✓		
HARDHAT	✓		

INSTRUMENTATION	No.
OVA	✓
THERMAL DESORBER	
O2/EXPLOSIMETER W/CAL. KIT	✓
PHOTOVAC TIP	
HNu (Probe _____)	✓
MAGNETOMETER	
PIPE LOCATOR	
WEATHER STATION	
DRAEGER PUMP, TUBES _____	
BRUNTON COMPASS	
MONITOX CYANIDE	
HEAT STRESS MONITOR	
NOISE EQUIPMENT _____	
PERSONAL SAMPLING PUMPS	
RADIATION EQUIPMENT	
DOCUMENTATION FORMS	
PORTABLE RATEMETER	
SCALER/RATEMETER	
NaI Probe	
ZnS Probe	
GM Pancake Probe	
GM Side Window Probe	
MICRO R METER	
ION CHAMBER	
ALERT DOSIMETER	
POCKET DOSIMETER	
FIRST AID EQUIPMENT	
FIRST AID KIT	✓
OXYGEN ADMINISTRATOR	
STRETCHER	
PORTABLE EYE WASH	
BLOOD PRESSURE MONITOR	
FIRE EXTINGUISHER	✓

DECON EQUIPMENT	No.
WASH TUBS	
BUCKETS	✓
SCRUB BRUSHES	✓
PRESSURIZED SPRAYER	
DETERGENT (Type Alconox)	✓
SOLVENT (Type _____)	
PLASTIC SHEETING	✓
TARPS AND POLES	
TRASH BAGS	✓
TRASH CANS	
MASKING TAPE	
DUCT TAPE	✓
PAPER TOWELS	✓
FACE MASK	
FACE MASK SANITIZER	✓
FOLDING CHAIRS	
STEP LADDERS	
DISTILLED WATER	✓
SAMPLING EQUIPMENT	
8 OZ. BOTTLES	✓
HALF-GALLON BOTTLES	
VOA BOTTLES	✓
STRING	
HAND BAILERS	
THIEVING RODS WITH BULBS	
SPOONS	✓
KNIVES	✓
FILTER PAPER	
PERSONAL SAMPLING PUMP SUPPLIES	
80 oz Amber Jugs	✓
1 L Cubitainer	✓
Pie pans	✓
Labels	✓

VAN EQUIPMENT	No.
TOOL KIT	✓
HYDRAULIC JACK	
LUG WRENCH	
TOW CHAIN	
VAN CHECK OUT	
Gas	
Oil	
Antifreeze	
Battery	
Windshield Wash	
Tire Pressure	
MISCELLANEOUS	
PITCHER PUMP	
SURVEYOR'S TAPE	✓
100 FIBERGLASS TAPE	✓
300 NYLON ROPE	
NYLON STRING	
SURVEYING FLAGS	
FILM	✓
WHEEL BARROW	
BUNG WRENCH	✓
SOIL AUGER	
PICK	
SHOVEL	
CATALYTIC HEATER	
PROPANE GAS	
BANNER TAPE	
SURVEYING METER STICK	
CHAINING PINS & RING	
TABLES	
WEATHER RADIO	
BINOCULARS	
MAGAPHONE	

MISCELLANEOUS (Cont.)	No.
SHIPPING EQUIPMENT	
COOLERS	✓
PAINT CANS WITH LIDS, 7 CLIPS EACH	
VERMICULITE	
SHIPPING LABELS	✓
DOT LABELS: "DANGER"	
"UP"	
"INSIDE CONTAINER COMPLIES ..."	
"HAZARD GROUP"	
STRAPPING TAPE	✓
BOTTLE LABELS	✓
BAGGIES	✓
CUSTODY SEALS	✓
CHAIN-OF-CUSTODY FORMS	✓
FEDERAL EXPRESS FORMS	✓
CLEAR PACKING TAPE	✓

ecology and environment, inc.

ON-SITE SAFETY MEETING

Project Cota Drum TDD/Pan T07-9105-039

Date 7-15-91 Time _____ Job No. EIA0160SBA 2T1071

Address _____

Specific Location _____

Type of Work _____

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment _____

Chemical Hazards _____

Radiation Hazards _____

Physical Hazards _____

Emergency Procedures _____

Hospital/Clinic _____ Telephone _____

Hospital Address _____

Special Equipment _____

Other _____

Checklist

1. Emergency information reviewed? _____ and made familiar to all team members? _____
2. Route to nearest hospital driven? _____ and its location known to all team members? _____
3. Site safety plan readily available and its location known to all team members? _____

Meeting shall be attended by all personnel who will be working within the exclusion area. Daily informal update meetings will be held when site tasks and/or conditions change.

ATTENDEES

(Expand on back of sheet if necessary)

Name Printed	Signature

Meeting Conducted by: _____ (Print) _____ (Signature)

_____ (Site Safety Coordinator) _____ (Team Leader)

Task Safety and Health Risk Analysis

All activities onsite have certain hazards associated with them that are common to any site work. Listed below are the common hazards, with appropriate precautions and avoidance measures:

PHYSICAL HAZARDS	PRECAUTIONS
__X__ Heat Stress	Be aware of heat stress symptoms and treatment; drink plenty of fluids; take sufficient breaks. Follow attached heat stress SOP(s).
_____ Sunburn	Apply sunscreen; wear hat, cap, long sleeves, etc., as needed.
_____ Cold Stress	Be aware of cold stress symptoms and treatment; wear warm, dry clothing; take sufficient breaks. Follow attached cold stress procedures(s).
__X__ Uneven or slippery terrain	Be aware of trip/fall hazard; walk carefully; wear boot covers if needed.
__X__ Debris onsite	Be aware of debris; walk carefully.
__X__ Overhead obstructions	Be aware of overhead piping and other objects; wear hard hat.
__X__ Proximity to heavy equipment	Be aware of heavy equipment operations and back-up alarm; keep safe distance from moving equipment; non-essential workers out of area.
__?__ Noise	Wear appropriate ear protection; use hand signals.
__X__ Flammable fuels for equipment and generators	Keep away from ignition sources and/or flames; store properly.
__X__ Deteriorated drums and/or tanks	Avoid contact unless activity involves contact; walk carefully near them; keep safe distance from them during handling, pumping, etc; don't move or stand on them.
_____ Compressed gas cylinders on site	Avoid contact; don't move; be aware of projectile hazard if cylinder knocked over and neck broken.
_____ Ponds, lagoons,	Be aware of drowning danger

	pits on site	especially in PPE; walk on edges carefully; avoid going out on catwalks over liquids; be aware of hardened "crusts" covering liquids.
_____	Brushy, wooded areas	Wear safety glasses; walk carefully.
_____	Confined space	Do not enter without special safety meeting, procedures, safety equipment, emergency planning. Complete confined space entry form; follow SOP attached. Permission of OSC and SSO.
__?__	Flammable chemicals present at site	Keep away from ignition sources or flames; use intrinsically safe and/or sparkproof equipment or tools as much as possible. Fire extinguisher on hand during handling.
_____	Explosive, shock-sensitive or unstable materials at site	Be very careful when working near these; avoid contact; don't move, jar, shake, or open.
__?__	Bulging drums or containers	Be very careful when working near them; avoid contact. Don't move, open, jar, or touch.
_____	Radioactive materials onsite	Monitor with proper equipment; wear TLD badge; avoid contact; wear proper PPE (See V.B.). Special entry procedures, decon, etc.
__?__	Snakes, spiders, scorpions, ticks, bees, dogs, etc.	Be aware of potential hazard of bite and treatment. Walk carefully; wear safety boots. Use insect repellent as needed. Be aware of warning signs. Watch for fire ant mounds, bee hives, hornet nests, high brush, piles of debris, overhead obstructions, etc.
__X__	Sharp edges, debris, nails, etc.	Be aware of cut/puncture hazard; wear appropriate protective gloves and boots.
_____	Dark rooms, areas	Use flashlights; walk carefully; stay near buddies; use radios if needed.

CHEMICALS	PRECAUTIONS

__X__ Contaminated air	Wear proper PPE for the task to avoid inhalation; (See Section V.B.) be aware of nature of chemical hazard.
__X__ Contaminated soil/ sludges/liquids	Wear proper PPE for the task to to avoid direct contact; (See Section V.B.) PPE depends upon activity, chemical, etc; be aware of nature of chemical hazard and possible slippery walking surface.
__X__ Chemicals known or suspected to be present at site	Be aware of nature and types of chemicals present, effects, symptoms of exposure, treatment; see chemical info in Section IX and attachments; be aware of physical hazards of the chemicals (ex. flammable, unstable, explosive). Avoid contact; wear proper PPE for task to prevent exposure. (See Section V.B.)
__X__ Splash by liquids present at site	Wear Level C protective clothing with Saranex coveralls and/or splash apron; work carefully.
__X__ Decontamination solvents (Alconox, hexane, etc.)	Be aware of chemical and physical properties and contents of attached MSDS sheet. Wear proper PPE during use. Keep hexane away from ignition sources.

BIOLOGICAL MATERIALS	PRECAUTIONS
_____ Medical wastes	Be aware of potentially infectious waste; avoid contact. Wear proper PPE for the task (See V.B.), especially gloves and respiratory protection. Watch for needles, syringes, etc. Be aware of possible presence of chemical and radio-active waste also; wear TLD; air monitor for radiation and organic vapors.

HEAT STRESS

Heat stress is very likely to occur at temperatures above 75-85° F if improper precautions are not taken. Heat stress monitoring should be performed when field work will exceed one hour at 85°F.

PRECAUTIONARY MEASURES which should be taken in the field include:

- Working in the cool morning hours.
- Frequently drink cool fluids (preferably water or gatorade)
- Taking frequent breaks (minimum of one/hour)
- Applying maximal pulse and body temperature guidelines
- Avoid beverages containing caffeine or alcohol
- Use cooling vests

SYMPTOMS OF HEAT STRESS

- Headache (often accompanied by Temp. of 101°F or greater)
- Elevated body temp. (>100.4°F)
- Disorientation (May appear to be drunk)
- Cramping of abdomen or leg muscles
- Nausea
- Profuse Sweating
- Flushed skin and lack of sweating
- Higher susceptibility to Heat Stress after an incident

FORMS OF HEAT STRESS AND TREATMENT

Heat Cramps:

Symptoms: Abdominal cramps or leg cramps.

Treatment: Apply firm pressure or gently massage affected muscles.
Provide plenty of cool water to drink.
Rest in cool area **INDIVIDUAL SHOULD NOT ATTEMPT TO CONTINUE WORK**

Heat Exhaustion:

Symptoms: Profuse sweating, weakness, rapid pulse, dizziness, headache and nausea. Body temperature is near normal (less than 102°F) or subnormal. Vomiting or fainting may occur. **Victim will be more susceptable to Heat Stress for several days after the incident.**

Treatment: Remove individual from field work.
Provide cool water to drink.
DO NOT GIVE FLUIDS IF VICTIM VOMITS
Apply cool wet cloths to body.
Loosen victims clothing.
Elevate feet 8-12 inches.
TAKE TO AIR CONDITIONED AREA TO REST

HEAT STROKE: **HEAT STROKE IS LIFE THREATENING**

Symptoms: Body Temperature 103°F or higher
Flushed, dry skin
Delerium, convulsions, coma or death

Treatment: Reduce body temperature with cool , not cold, water (no ice). Reduce body temperature to 100-102°F. Do not over cool.
SEEK MEDICAL ATTENTION-Heat Stroke is LIFE THREATENING
Once body temperature is near normal, dry off victim. Use fans or air conditioners if available, because they promote cooling. Do not give stimulants or juices. If victim's temperature starts to go up again, start the cooling process again.

Chemical Fact Sheet* Version 2

ASBESTOS

The information in this sheet applies to workplace exposure resulting from processing, manufacturing, storing or handling and is not designed for the population at large. Any generalization beyond occupational exposures should not be made. The best industrial hygiene practice is to minimize exposure to all chemicals.

Chemical Names: Amosite, amianthus, actinolite, tremolite, anthophyllite, amphiboles, crocidolite, chrysotile, calcium magnesium silicate; CAS 1332-21-4.

Trade Names: Ascarite and others.

Uses: Heat-resistant insulator, inert filler, component of cements or brake linings, and many others.

PHYSICAL INFORMATION

Appearance: Fine, slender, flaxy fiber which can be white, green, blue or grey-brown in color.

Odor: None.

Behavior in Water: Insoluble.

HEALTH HAZARD INFORMATION

OSHA Standard: Average 8 hour exposure -- 0.2 fiber/cubic centimeter (effective 7/86).

NIOSH Recommended Limit: Average 8 hour exposure -- 0.1 fiber/cubic centimeter.

ACGIH Recommended Limit: Average 8 hour exposure -- amosite - 0.5 fiber/cubic centimeter, chrysotile - 2 fibers/cubic centimeter, crocidolite - 0.2 fiber/cubic centimeter, other forms - 2 fibers/cubic centimeter.

Short Term Exposure:

Short term exposure to asbestos has been shown to increase the risk of developing lung cancer, including mesothelioma. Such illnesses and their symptoms develop over a number of years and are usually associated with long term exposure to cancer-causing substances. However, due to the action of asbestos fibers trapped in the lung, no level or duration of exposure can be assumed to be free of risk and any exposure may contribute to the development of disease.

Long Term Exposure:

Exposure to asbestos fibers has been shown to cause an increased risk of developing several forms of cancer and other chronic lung disease. These diseases usually develop over a number of years, but may appear more rapidly. Once established, the disease becomes progressively worse even if exposure has ceased. Due to the long period that may elapse between exposure and the onset of disease, OSHA requires medical monitoring of workers occupationally exposed to asbestos. There is a very large increase in the risk of developing lung cancer in workers exposed to asbestos who also smoke cigarettes. Because asbestos can cause cancer, attempts should be made to reduce exposure to the lowest level possible through the use of engineering controls, protective equipment and appropriate work practices. The failure of workers exposed to asbestos to follow proper work practices (such as showering and changing to clean clothes before leaving work) can expose family members to asbestos fibers brought home on clothing.

*Prepared by the Bureau of Toxic Substance Assessment, New York State Department of Health. For an explanation of the terms and abbreviations used, see "Toxic Substances: How Toxic is Toxic" available from the New York State Department of Health.

EMERGENCY AND FIRST AID INSTRUCTIONS

Inhalation: Move person to fresh air. Clean any fibers away from nose and mouth. Seek medical attention, if necessary.

Skin: Wash material from skin without inhaling fibers. Remove any soiled clothing.

Eyes: Wash with water for 15 minutes. Seek medical attention, if necessary.

Ingestion: Seek medical attention, if necessary.

FIRE AND EXPLOSION INFORMATION

General: Non-flammable.

REACTIVITY

General: Stable.

PROTECTIVE MEASURES

Note: Several New York State agencies regulate aspects of the asbestos removal industry. The Department of Environmental Conservation addresses issues of transportation and disposal of materials containing asbestos. The Departments of Health and Labor are developing regulations for licensing of contractors, certification of workers and establishment of criteria for training and work practices in the asbestos removal industry. For more information, please contact the appropriate state agency.

Storage and Handling: Use closed, heavy-gauge, impervious plastic bags in sealed rigid containers protected from physical damage. Do not smoke, eat, or drink in the work area.

Engineering Controls: To reduce the formation of dust, asbestos-containing materials should be wet down, before being disturbed, with water that contains a surfactant or wetting agent (e.g. detergent). All hand-operated and power-operated tools which may release asbestos fibers in excess of OSHA standards must be supplied with local exhaust systems. Isolation, enclosure and dust collection methods should be used. Showers, sinks and eye wash stations should be readily available.

Protective Clothing (Should not be substituted for proper handling and engineering controls): Fiber concentrations in excess of 0.2 fiber/cubic centimeter require the use of special clothing (coveralls, head coverings, gloves and foot coverings), change rooms with two separate lockers (one for street clothes and one for work clothes) and a medical surveillance program. Employers are urged to contact their regional OSHA offices for more detailed information on the requirements of the revised OSHA standard for occupational exposure to asbestos.

Protective Equipment: For levels up to 2 fibers/cubic centimeter use an air-purifying respirator with high-efficiency filters. For levels up to 10 fibers/cubic centimeter use the above with a full facepiece. For levels up to 20 fibers/cubic centimeter use a powered air-purifying respirator with high-efficiency filters or a supplied-air respirator operated in a continuous-flow mode. For levels up to 200 fibers/cubic centimeter use a supplied-air respirator with a full facepiece, operated in pressure demand mode. For levels above 200 fibers/cubic centimeter use a supplied-air respirator with a full facepiece, operated in pressure demand mode and equipped with an auxiliary positive pressure self-contained breathing apparatus.

PROCEDURES FOR SPILLS AND LEAKS

Wearing protective equipment, use a wet-mop or high-efficiency vacuum to clean area. Avoid blowing, dry-brushing and dry-mopping, all of which may raise dust levels. For information on proper storage and disposal of wastes containing asbestos, contact your regional office of the New York State Department of Environmental Conservation.

For more information:
Contact the Industrial Hygienist or Safety Officer at your worksite or the New York State Department of Health, Bureau of Toxic Substance Assessment, 2 University Place, Albany, New York 12203.

Chemical Fact Sheet* Version 3

FORMALDEHYDE

The information in this sheet applies to workplace exposure resulting from processing, manufacturing, storing or handling and is not designed for the population at large. Any generalization beyond occupational exposures should not be made. The best industrial hygiene practice is to maintain concentrations of all chemicals at levels as low as is practical.

Chemical Names: Methanal, formic aldehyde, methyl aldehyde, methylene oxide, oxomethane, formalin, oxymethylene; CAS 50-00-0.

Trade Names: Formalin, Formalith, Formol, Fyde, Hoch, Karsan, Methanal, Morbidcid.

Uses: In the manufacture of phenolic resins, artificial resins, artificial silk, dyes, organic chemicals, glass mirrors, explosives and rubber; as a disinfectant, germicide and fungicide; used in the tanning and preserving of hides, waterproofing fabrics, embalming and photographic development. Found in such building materials as foam insulation, particle board and plywood.

PHYSICAL INFORMATION

Appearance: Colorless gas but usually found as a 37% solution in water and methanol which is clear and colorless (formalin).

Odor: Pungent and suffocating. Minimum Detectable by Odor: 0.05 - 1.0 ppm.

Behavior in Water: Highly soluble.

HEALTH HAZARD INFORMATION

OSHA Standard: Average 8 hour exposure -- 3 ppm.

NIOSH Recommended Limit: 0.1 ppm.

ACGIH Recommended Limit: Average 8 hour exposure -- 1 ppm.

Short Term Exposure:

Note: There is considerable individual variation in sensitivity to formaldehyde.

Inhalation: Irritation of the nose and throat can occur after an exposure of 0.25 ppm to 0.45 ppm. Levels between 0.4 ppm and 0.8 ppm can give rise to coughing and wheezing, tightness of the chest and shortness of breath. Sudden exposures to concentrations of 4 ppm may lead to irritation of lung and throat severe enough to give rise to bronchitis and laryngitis. Breathing may be impaired at levels above 10 ppm and serious lung damage may occur at 50 ppm.

Skin: Direct contact with the liquid can lead to irritation, itching, burning and drying. It is also possible to develop an allergic reaction to the compound following exposure by any route.

Eyes: Exposure to airborne levels of formaldehyde of 0.4 ppm have brought on tearing and irritation. Small amounts of liquid splashed in the eye can cause damage to the cornea. Eye irritation was reported at levels between 0.05-2.0 ppm.

Ingestion: As little as 1 liquid ounce has resulted in death to humans. Smaller amounts can damage the throat, stomach and intestine resulting in nausea, vomiting, abdominal pain and diarrhea. Accidental exposure may also cause loss of consciousness, lowered blood pressure, kidney damage and, if the person is pregnant, the possibility of the fetus being aborted.

Long Term Exposure:

Inhalation can result in respiratory congestion with associated coughing and shortness of breath. Daily skin contact can lead to drying and scaling. Some individuals may experience allergic reactions after initial contact with the chemical. Subsequent contact may cause skin rashes and asthma and reactions may become more severe if exposure persists. Long Term inhalation of high levels of formaldehyde vapor (14 ppm) in rats resulted in an elevated incidence of cancer of the nose. Genetic damage from exposure has been shown in bacteria and some insects. Whether it causes these effects in humans is uncertain.

*Prepared by the Bureau of Toxic Substance Assessment, New York State Department of Health. For an explanation of the terms and abbreviations used, see "Toxic Substances: How Toxic is Toxic" available from the New York State Department of Health.

EMERGENCY AND FIRST AID INSTRUCTIONS

Inhalation: Move person to fresh air. Give oxygen or artificial respiration as required. Seek medical attention, if necessary.

Skin: Remove soaked clothing. Wash with large quantities of soap and water for at least 5 minutes. Seek medical attention, if necessary.

Eyes: Wash with water for at least 15 minutes. Seek medical attention.

Ingestion: Seek medical attention. Give oxygen or artificial respiration if necessary. Administer water, milk, or egg whites. Note: Do not give an unconscious person anything by mouth.

Note to Physician: May require supportive measures for pulmonary edema when inhaled at high levels.

FIRE AND EXPLOSION INFORMATION

General: In the gaseous state, formaldehyde will burn if exposed to a source of ignition. Ignite at 185°F, 85°C (37%); 122°F, 50°C(15%).

Explosive Limits: Upper -- 73%, lower -- 7%.

Extinguisher: Water spray, dry chemical, alcohol foam or carbon dioxide.

REACTIVITY

Materials to Avoid: Reacts violently with performic acid, mixtures of aniline and perchloric acic and nitrogen peroxide.

Conditions to Avoid: Any contact with sources of ignition or extreme high temperatures can cause fire or explosion.

PROTECTIVE MEASURES

Storage and Handling: Indoor storage should be in areas having floors pitched toward a trapped drain or in a curbed retention area. Polymerization of formaldehyde solution can occur if temperature should fall below 59°F.

Engineering Controls: Adequate ventilation or an entirely enclosed system should be employed. Shower, sinks and eyewash stations should be available.

Protective Clothing (Should not be substituted for proper handling and engineering controls): Water proof boots, gloves and apron should be worn along with safety goggles if contact with chemicals is likely.

Protective Equipment: For any detectable levels use a self-contained breathing apparatus with a full facepiece operated in a positive pressure mode or a combination Type C supplied-air respirator with an auxiliary self-contained breathing apparatus, both with a full facepiece an operated in a positive pressure mode. For escape from a contaminated area use a gas mask with a canister providing protection against formaldehyde or an escape self-contained breathing apparatus.

PROCEDURES FOR SPILLS AND LEAKS

Warn other workers of spill. Put on proper protective equipment and clothing. Ventilate area. Spread sand vermiculite or other absorbent material on spill. Sweep up and place in suitable container. For final disposal contact your regional office of the New York State Department of Environmental Conservation.

For more information:
Contact the Industrial Hygienist or Safety Officer at your worksite or the New York State Department of Health, Bureau of Toxic Substance Assessment, 2 University Place, Albany, New York 12203.

Chemical Fact Sheet*

Version 2

MERCURY (metallic)

The information in this sheet applies to workplace exposure resulting from processing, manufacturing, storing or handling and is not designed for the population at large. Any generalization beyond occupational exposures should not be made. The best industrial hygiene practice is to maintain concentrations of all chemicals at levels as low as is practical.

Chemical Names: Hydrargyrum; CAS 7439-97-6.

Trade Names: Quicksilver, liquid silver and others.

Uses: Used in the manufacture of scientific instruments, in electrical equipment, synthetic silk, solder, electrolytic processes, metal plating, tanning, dyeing, textiles, photography, photoengraving, paints and pigments.

PHYSICAL INFORMATION

Appearance: A silvery-white, heavy liquid.

Odor: Odorless.

Behavior in Water: Does not mix. Will sink.

Evaporation: Slow, but even at room temperature, may evaporate to cause symptoms as listed under inhalation.

HEALTH HAZARD INFORMATION

OSHA Standard: 0.1 mg/m^3.

NIOSH Recommended Limit: Average 8 hour exposure -- 0.05 mg/m^3.

ACGIH Recommended Limit: Average 8 hour exposure -- 0.05 mg/m^3.

Short Term Exposure:

Inhalation: Exposure to levels below 1 mg/m^3 has been shown to produce nonspecific symptoms such as shyness, insomnia, anxiety and loss of appetite. At higher levels (1-3 mg/m^3 for 2-5 hours) may cause headache, salivation, metallic taste, chills, cough, fever, tremors, abdominal cramps, diarrhea, nausea, vomiting, tightness in the chest, difficult breathing, fatigue, lung irritation and possible lung tissue damage. Symptoms may begin several hours after exposure and may last a week. Large doses may result in flu-like symptoms, which, in severe cases, may result in death due to pneumonia.

Skin: Can be absorbed through the skin. May cause irritation. Prolonged contact with skin can result in symptoms listed above.

Eyes: Can cause eye irritation.

Ingestion: Generally does not produce ill effects.

Long Term Exposure:

Mercury accumulates in the brain quickly during exposure but is released from the brain very slowly. This will result in a build-up in brain tissue over a long time. The liver and kidneys may also be damaged by mercury accumulation.

It may cause headache, dizziness, restlessness, irritability, sleepness, tremors, defective muscle control, increased salivation, loose teeth, irritation of the gums with a blue line between teeth and gums, loss or appetite, nausea, vomiting, diarrhea, liver damage, changes in urine, raised red areas and blisters of skin, impaired memory and possible permanent brain damage.

Frequency of complaints and severity of symptoms increase with levels of exposure, most notably above 0.1 mg/m^3. However, many of these symptoms have been reported at levels below recommended limits due to the accumulation of mercury over long term exposure.

*Prepared by the Bureau of Toxic Substance Assessment, New York State Department of Health. For an explanation of the terms and abbreviations used, see "Toxic Substances: How Toxic is Toxic" available from the New York State Department of Health.

EMERGENCY AND FIRST AID INSTRUCTIONS

Inhalation: Get to fresh air. Give artificial respiration if breathing has stopped. Give oxygen if breathing is difficult. Keep warm and at rest. Get medical attention immediately.

Skin: Remove any liquid soaked clothing. Wash affected area with soap and water. Get medical attention if necessary.

Eyes: Immediately wash eyes with large amounts of water. Get medical attention immediately. Contact lenses should not be worn when working with this material.

Ingestion: Seek medical attention.

Note to Physician: Gastric lavage with 5% solution of sodium formaldehyde sulfoxalate or 2-5% solution of sodium bicarbonate. Administer BAL (dimercaprol) intramuscularly as a 10% solution in oil. Urine mercury determination may be useful as an index of absorption.

FIRE AND EXPLOSION INFORMATION

General: Not flammable.

REACTIVITY

Materials to Avoid: Reacts with nitrates, chlorates, hot sulfuric acid, ammonia gas, acetylenes, alkalies and dry bromine.

Conditions to Avoid: Heat will speed up the rate of evaporation, increasing risk due to inhalation.

PROTECTIVE MEASURES

Storage and Handling: Store in well-ventilated area, in small amounts, in closed polyethylene bottles.

Engineering Controls: Provide adequate ventilation in both storage tanks and work areas and enclose operations where possible. Eyewash stations, showers and sinks should be available. Provide separate storage for work and street clothes. Flooring should not be able to absorb mercury or have cracks and spaces.

Protective Clothing (Should not be substituted for proper handling and engineering controls): Wear full body work clothes with a minimum of seams, no pleats or cuffs, made from a material that will not readily absorb mercury. Also wear protective shoes, or shoe covers, rubber gloves and goggles if there is any danger of splashing. Clothing, shoes, gloves and goggles should be changed or washed daily. Laundering should be provided by the employer.

Protective Equipment: For levels up to 0.5 mg/m^3 use a supplied-air respirator, a self-contained breathing apparatus or a chemical cartridge respirator with cartridges providing protection against mercury vapors. For levels up to 1.25 mg/m^3 use a supplied-air respirator operated in continuous-flow mode or a powered air-purifying respirator providing protection against mercury vapors. For levels up to 2.5 mg/m^3 use any of the above with a full facepiece or a gas mask with a canister providing protection against mercury vapors. For levels up to 28 mg/m^3 use a Type C supplied-air respirator operated in a positive pressure mode. For levels above 28 mg/m^3 or at unknown concentrations use a self-contained breathing apparatus with a full facepiece operated in a positive pressure mode or a combination Type C supplied-air respirator with an auxiliary self-contained breathing apparatus, both with a full facepiece and operated in a positive pressure mode. For escape from a contaminated area use a gas mask with a canister providing protection against mercury vapors or an escape self-contained breathing apparatus. For firefighting use a gas mask providing protection against mercury vapors or an escape self-contained breathing apparatus.

PROCEDURES FOR SPILLS AND LEAKS

Get all workers out of spill area. Wearing protective equipment and clothing, clean up the spill with an industrial vacuum cleaner with a charcoal filter to absorb mercury vapor. For mercury spilled in cracks cover with zinc dust to form an amalgam, or cover wth calcium polysulfide with excess sulfur. Do not sweep or use compressed air to blow mercury droplets as it can increase air cncentrations. Store contaminated or waste mercury in tightly covered or vapor-proof containers pending removal. For final disposal contact your regional office of the New York State Departme of Environmental Conservation.

For more information:
Contact the Industrial Hygienist or Safety Officer at your worksite or the New York State Department of Health, Bureau of Toxic Substance Assessment, 2 University Place, Albany, New York 12203.

Chemical Fact Sheet* Version 3

LEAD (Metallic and Inorganic Compounds)

The information in this sheet applies to workplace exposure resulting from processing, manufacturing, storing or handling and is not designed for the population at large. Any generalization beyond occupational exposures should not be made. The best industrial hygiene practice is to maintain concentrations of all chemicals at levels as low as is practical.

Chemical Names: Lead, CAS 7439-92-1; lead carbonate, CAS 598-63-0; lead chloride, CAS 7758-95-4; lead monoxide, CAS 1317-36-8; lead sulfide, CAS 1314-87-0; and others.

Trade Names: C.I. Pigment Metal 4, C.I. 77575, Lead flake, Whole lead, Litharge and others.

Uses: Tank linings, piping and other chemical reaction equipment; petroleum refining; manufacture of gasoline additives; pigments for paint; storage batteries, solder and fusible alloys; radiation shielding and others.

PHYSICAL INFORMATION

Appearance: Bluish white to silvery grey solid (lead metal).

Odor: None.

Behavior in Water: Insoluble.

HEALTH HAZARD INFORMATION

OSHA Standard: Average 8 hour exposure -- 0.05 mg/m^3 (lead).

NIOSH Recommended Limit: Average 10 hour day or 40 hour week exposure -- 0.1 mg/m^3 (lead).

ACGIH Recommended Limit: Average 8 hour exposure -- 0.15 mg/m^3 (lead).

NOTE: Blood-lead level is a good indicator of total lead exposure. Current OSHA regulations require that if an individual has a blood-lead level greater than or equal to .050 mg lead per 100 ml. blood, he or she must be removed from all exposures to lead and cannot return to the exposure environment until the blood level falls to .040 mg lead per 100 ml. blood or less.

Short Term Exposure:

Note: Lead is a cumulative poison. Increasing amounts can build up in the body eventually reaching a point where symptoms and disability occur. Lead dust carried home on contaminated clothing can result in exposure and symptoms in other family members. Standards only protect for inhalation exposure. Extra precautions should be taken if skin exposure also occurs.

Inhalation: The effects of exposure to fumes and dusts of inorganic lead may not develop quickly. Symptoms may include decreased physical fitness, fatigue, sleep disturbance, headache, aching bones, and muscles, constipation, abdominal pains and decreased appetite. These effects are reported to be reversible if exposure ceases. Inhalation of large amounts of lead may lead to seizures, coma and death.

Skin: May cause irritiation.

Eyes: May cause irritation.

Ingestion: See effects listed for inhalation. Ingestion of large amounts of lead may lead to seizures, coma and death.

Long Term Exposure:

Lead can accumulate in the body over a period of time. Therefore, long term exposures to lower levels can result in a build up of lead in the body and more severe symptoms. These may include anemia, pale skin, a blue line at the gum margin, decreased hand-grip strength, abdominal pain, severe constipation, nausea, vomiting, and paralysis of the wrist joint. Prolonged exposure may also result in kidney damage. If the nervous system is affected, usually due to very high exposures, the resulting effects include severe headache, convulsions, coma, delirium and death. In non-fatal cases, recovery is slow and not always complete. Alcohol ingestion and physical exertion may bring on symptoms. Continuous exposure can result in decreased fertility. Elevated lead exposure of either parent before pregnancy can increase the chances of miscarriage or birth defects. Exposure of the mother during pregnancy can cause birth defects.

*Prepared by the Bureau of Toxic Subatance Assessment, New York State Department of Health. For an explanation of the terms and abbreviations used, see "Toxic Substances: How Toxic is Toxic" available from the New York State Department of Health.

EMERGENCY AND FIRST AID INSTRUCTIONS

Inhalation: Move person to fresh air. Give artificial respiraton as needed. Get medical attention immediately.

Skin: Wash area with plenty of soap and water. Remove any contaminated clothing.

Eyes: Rinse eyes with plenty of water for 15 minutes. Seek medical attention, if necessary.

Ingestion: If person is conscious, give water. Seek medical attention.

Note to Physician: Whole blood lead levels, circulating plasma/erythrocyte lead concentration ratio, urine ALA, and erythrocyte protoporphyrin fluorescent microscopy may all be useful in monitoring or assessing lead exposure. Chelating agents such as edetate disodium calcium and penicillamine are generally useful in the therapy of acute lead intoxification.

FIRE AND EXPLOSION INFORMATION

General: Not combustible. If exposed to fire, may release toxic fumes or sulfur and lead oxides.

Extinguisher: Use extinguisher appropriate to burning material. When fighting fire, wear a self-contained breathing apparatus with a full facepiece and operated in positive pressure mode.

REACTIVITY

Materials to Avoid: Reacts violently with potassium.

Conditions to Avoid: Excessive heat.

PROTECTIVE MEASURES

Storage and Handling: Store in an area away from heat and keep separate from potassium.

Engineering Controls: Adequate ventilation, sinks, showers and eyewash stations should be provided.

Protective Clothing (Should not be substituted for proper handling and engineering controls): Full body work clothing should be worn including bump caps or hard hats, rubber gloves, and eye protection. Employees should routinely wash their skin thoroughly and change clothing at the end of each work shift.

Protective Equipment: For levels up to 0.5 mg/m^3 use a supplied-air respirator, a self-contained breathing apparatus or an air-purifying respirator with high-efficiency particulate filter. For levels up to 1.25 mg/m^3 use a supplied-air respirator operated in continuous flow mode or a powered air-purifying respirator with high efficiency particulate filters. For levels up to 2.5 mg/m^3 use any of the above with a full facepiece. For levels up to 50 mg/m^3 use a Type C supplied-air respirator operated in a positive pressure mode. For levels up to 100 mg/m^3 use a Type C supplied-air respirator with a full facepiece operated in a positive pressure mode. For levels greater than 100 mg/m^3 or in areas of unknown concentrations use a self-contained breathing apparatus with full facepiece operated in a positive-pressure mode or a combination Type C supplied-air respirator with an auxiliary self-contained breathing apparatus, both with a full facepiece and operated in a positive pressure mode. For escape from a contaminated area use a respirator with high-efficiency particulate filters or an escape self-contained breathing apparatus.

Miscellaneous: No eating, drinking, or smoking in areas where the dusts or fumes of lead or its compounds are present.

PROCEDURES FOR SPILLS AND LEAKS

Get all workers out of spill area. Put on necessary protective equipment including respirators. If spill is in powder form, vacuum whenever possible to avoid raising dust by sweeping or blowing. Place in suitable container. For final disposal contact your regional office of the New York State Department of Environmental Conservation.

For more information:
Contact the Industrial Hygienist or Safety Officer at your worksite or the New York State Department of Health, Bureau of Toxic Substance Assessment, 2 University Place, Albany, New York 12203.

Mallinckrodt
Material Safety Data

Emergency Phone Number: 314-982-5000

Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361

HYDROCHLORIC ACID, 37%

PRODUCT IDENTIFICATION:

Synonyms: Muriatic acid

Formula CAS No.: 7647-01-0

Molecular Weight: 36.46 (HCl)

Chemical Formula: HCl

Hazardous Ingredients: Not Applicable

PRECAUTIONARY MEASURES

DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. INHALATION MAY CAUSE LUNG DAMAGE.

Do not get in eyes, on skin, or on clothing.
Avoid breathing mist.
Use only with adequate ventilation.
Wash thoroughly after handling.
Store in a tightly closed container.
Remove and wash contaminated clothing promptly.
This substance is classified as a POISON under the Federal Caustic Poison Act.

EMERGENCY/FIRST AID

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. If swallowed, DO NOT INDUCE VOMITING!
Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases call a physician.
SEE SECTION 5.

DOT Hazard Class: Corrosive Material

SECTION 1 Physical Data

Appearance: Clear, colorless fuming liquid.

Odor: Pungent odor of hydrogen chloride.

Solubility: Infinite in water with slight evolution of heat.

Boiling Point: 53°C (127°F); Azeotrope (20.2%) boils at 109°C (228°F)

Melting Point: -74°C (-101°F)

Specific Gravity: 1.18

Vapor Density (Air = 1): No information found.

Vapor Pressure (mm Hg): 190 @ 25°C (77°F)

Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
Can react with metals to release flammable hydrogen gas.

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
If involved in a fire, use water spray.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage. Containers may burst when heated.

Hazardous Decomposition Products:
When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
A strong mineral acid, concentrated hydrochloric acid is highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

SECTION 4 Leak/Spill Disposal Information

Clean-up personnel should wear protective clothing and respiratory equipment suitable for toxic or corrosive fluids or vapors. Isolate or enclose the area of the leak or spill.
Small Spills: Flush with water and neutralize with alkaline material (soda ash, lime, etc.). Sewer neutralized material with excess water. Larger spills and lot sizes: Neutralize with alkaline material, pick up with absorbent material (sand, earth, vermiculite). Provide forced ventilation to dissipate fumes. Dispose in a RCRA-approved waste facility or sewer the neutralized slurry with excess water if local ordinances allow.

Reportable Quantity (RQ)(CWA/CERCLA) : 5000 lbs.

Ensure compliance with local, state and federal regulations.

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 0

Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361.

SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:
Corrosive! Inhalation of vapors can cause coughing, choking, inflamation of the nose, throat, and upper respiratory tract. Inhalation of higher concentrations may cause lung damage.

Ingestion:
Corrosive! Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. May cause nausea, vomiting, and diarrhea.

Skin Contact:
Corrosive! Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and discolor skin.

Eye Contact:
Corrosive! Vapors are irritating and may cause damage to the eyes. Splashes may cause severe burns and permanent eye damage.

Chronic Exposure:
Long-term exposure to concentrated vapors may cause erosion of teeth. Long term exposures seldom occur due to the corrosive properties of the acid.

Aggrevation of Pre-existing Conditions:
Persons with pre-existing skin disorders or eye disease may be more susceptible to the effects of this substance.

B. FIRST AID

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:
DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Exposure:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Eye Exposure:
Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA (RTECS, 1982)

Oral rat LD50: 900 mg/kg (Hydrochloric acid concentrated) Mutation references cited.

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL):
5 ppm (TWA) Ceiling
-ACGIH Threshold Limit Value (TLV):
5 ppm (TWA) Ceiling

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)
If the TLV is exceeded a full facepiece chemical cartridge respirator may be worn, in general, up to 100 times the TLV or the maximum use concentration specified by the respirator supplier, whichever is less. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection:
Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Eye Protection:
Use chemical safety goggles and/or a full face shield where splashing is possible.Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect from physical damage and direct sunlight. Isolate from incompatible substances. Protect from moisture.

HYDCH

Material Safety Data Sheet

Required under USDL Safety and Health Regulations Shipyard Employment (29 CFR 1915)

U.S. Department of Labor

Occupational Safety and Health Administration

OMB No. 1218-0074
Expiration Date 05/31/86

PREPARED 1/10/86

Section I

Manufacturer's Name: ALCONOX, INC.

Emergency Telephone Number: (212) 473-1300

Address (Number, Street, City, State, and ZIP Code): 215 PARK AVENUE SOUTH

NEW YORK, N.Y. 10003

Chemical Name and Synonyms: N.A.

Trade Name and Synonyms: ALCONOX

C6300-1, C6301-1, C6301-2,-3,-4,-5

Chemical Family: ANIONIC DETERGENT

Formula: N.A.

D51-.502

Section II - Hazardous Ingredients

Paints, Preservatives, and Solvents	%	TLV (Units)	Alloys and Metallic Coatings	%	TLV (Units)
Pigments: NONE			Base Metal: NONE		
Catalyst: NONE			Alloys: NONE		
Vehicle: NONE			Metallic Coatings: NONE		
Solvents: NONE			Filler Metal Plus Coating or Core Flux: NONE		
Additives: NONE			Others: NONE		
ers: NONE					

Hazardous Mixtures of Other Liquids, Solids or Gases

	%	TLV (Units)
NONE		

Section III - Physical Data

Boiling Point (°F)	N.A.	Specific Gravity (H_2O=1)	N.A.
Vapor Pressure (mm Hg.)	N.A.	Percent Volatile by Volume (%)	N.A.
Vapor Density (AIR=1)	N.A.	Evaporation Rate _____ =1)	N.A.

Solubility in Water: APPRECIABLE

Appearance and Odor: WHITE POWDER INTERSPERSED WITH CREAM COLORED FLAKES - ODORLESS

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	Lel	Uel
NONE	N.A.	N.A.	N.A.

Extinguishing Media: WATER, CO_2, DRY CHEMICAL, FOAM, SAND/EARTH

Special Fire Fighting Procedures: FOR FIRES INVOLVING THIS MATERIAL, DO NOT ENTER WITHOUT PROTECTIVE EQUIPMENT AND SELF CONTAINED BREATHING APPARATUS

Unusual Fire and Explosion Hazards: NONE

Section V - Health Hazard Data

Threshold Limit Value

NO DATA AVAILABLE - TREAT AS NUISANCE DUST

Effects of Overexposure

PROLONGED EXPOSURE TO DUST MAY IRRITATE MUCOUS MEMBRANES

Emergency First Aid Procedures

EYES - FLUSH WITH PLENTY OF WATER FOR 15 MINUTES, SKIN-FLUSH WITH PLENTY OF WATER. INGESTION - DRINK LARGE QUANTITIES OF WATER TO DILUTE MATERIAL. GET MEDICAL ATTENTION FOR DISCOMFORT.

Section VI - Reactivity Data

Stability	Unstable		Conditions to Avoid: NONE
	Stable: X		

Incompatability (Materials to Avoid): AVOID STRONG ACIDS

Hazardous Decomposition Products: MAY RELEASE CO_2 GAS ON BURNING

Hazardous Polymerization	May Occur		Conditions to Avoid: NONE
	Will Not Occur: X		

Section VII - Spill or Leak Procedures

Steps to be Taken in Case Material is Released or Spilled: MATERIAL FOAMS PROFUSELY, SHOVEL AND RECOVER AS MUCH AS POSSIBLE. RINSE REMAINDER TO SEWER. MATERIAL IS COMPLETELY BIODEGRADABLE.

Waste Disposal Method: SMALL QUANTITIES MAY BE DISPOSED OF IN SEWER. LARGE QUANTITIES SHOULD BE DISPOSED OF ACCORDING TO LOCAL REQUIREMENTS FOR NON-HAZARDOUS DETERGENT

Section VIII - Special Protection Information

Respiratory Protection (Specify Type): DUST MASK

Ventilation	Local Exhaust: NORMAL		Special: N.A.	
	Mechanical (General): N.A.		Other: N.A.	
Protective Gloves: USEFUL - NOT REQUIRED		Eye Protection: USEFUL - NOT REQUIRED		

Other Protective Equipment: NOT REQUIRED

Section IX - Special Precautions

Precautions to be Taken in Handling and Storing: SHOULD BE STORED IN A DRY AREA TO PREVENT CAKING

Other Precautions: NO SPECIAL REQUIREMENTS OTHER THAN THE GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES EMPLOYED WITH ANY INDUSTRIAL CHEMICAL.

Ecology and Environment, Inc.

PHOTOGRAPHIC RECORD

SITE NAME: COTA DRUM SITE
SITE LOCATION: DES MOINES, IOWA
JOB NUMBER: KJ7100/0096CISCXX

Photo Number: 13 & 14

Subject: Exterior of COTA Industries Facility.

Photographer: Brooks

Date/Time: 2/9/96 @ 0840 hrs

Direction: West

Ecology and Environment, Inc.

PHOTOGRAPHIC RECORD

SITE NAME: COTA DRUM SITE
SITE LOCATION: DES MOINES, IOWA
JOB NUMBER: KJ7100/0096CISCXX

Photo Number: 11

Subject: Evidence of transient use within the facility.

Photographer: Brooks

Date/Time: 2/9/96 @ 0837 hrs

Direction: Northwest

Photo Number: 12

Subject: 5-gallon buckets of products within the facility.

Photographer: Brooks

Date/Time: 2/9/96 @ 0836 hrs

Direction: Northeast

Ecology and Environment, Inc.

PHOTOGRAPHIC RECORD

SITE NAME: COTA DRUM SITE
SITE LOCATION: DES MOINES, IOWA
JOB NUMBER: KJ7100/0096CISCXX

Photo Number: 8

Subject: Products within the paint mixing room.

Photographer: Brooks

Date/Time: 2/9/96 @ 0834 hrs

Direction: South

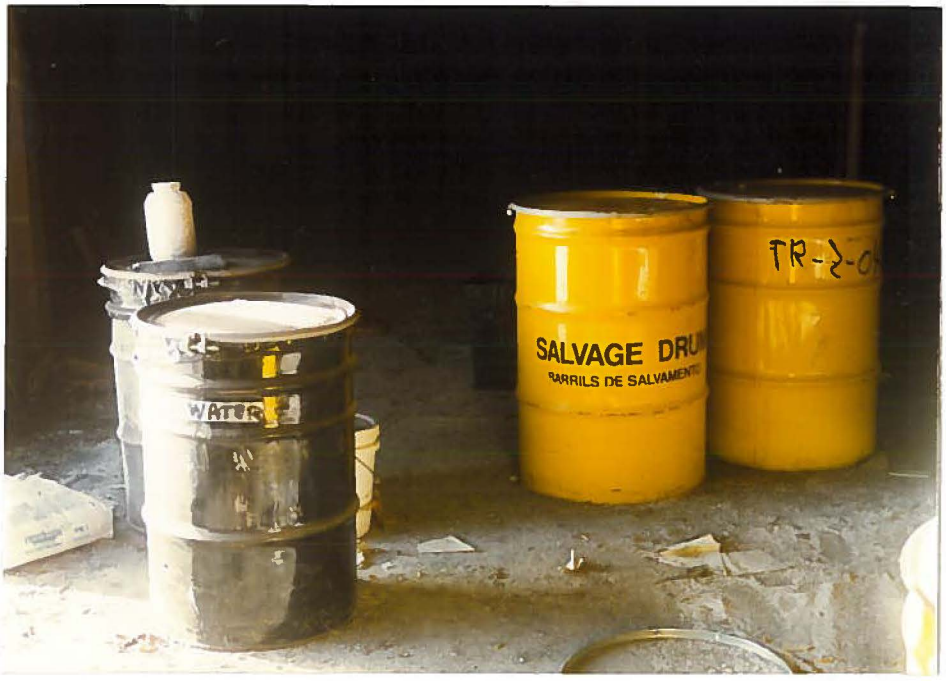
Photo Number: 9

Subject: Containerized waste from previous investigations.

Photographer: Brooks

Date/Time: 2/9/96 @ 0835 hrs

Direction: North



Ecology and Environment, Inc.

PHOTOGRAPHIC RECORD

SITE NAME: COTA DRUM SITE
SITE LOCATION: DES MOINES, IOWA
JOB NUMBER: KJ7100/0096CISCXX

Photo Number: 5

Subject: Nineteen 55-gallon drums containing solidified material and assorted 5-gallon buckets on back dock area.

Photographer: Brooks

Date/Time: 2/9/96 @ 0831 hrs

Direction: North

Photo Number: 6

Subject: Drum #C-1 and others within the drum storage room.

Photographer: Brooks

Date/Time: 2/9/96 @ 0832 hrs

Direction: Southeast

Ecology and Environment, Inc.

PHOTOGRAPHIC RECORD

SITE NAME: COTA DRUM SITE
SITE LOCATION: DES MOINES, IOWA
JOB NUMBER: KJ7100/0096CISCXX

Photo Number: 3

Subject: Drum burial area west of the facility.

Photographer: Brooks

Date/Time: 2/9/96 @ 0829 hrs

Direction: Northwest

Photo Number: 4

Subject: School adjacent to the west of the site.

Photographer: Brooks

Date/Time: 2/9/96 @ 0830 hrs

Direction: West

Ecology and Environment, Inc.

PHOTOGRAPHIC RECORD

SITE NAME: COTA DRUM SITE
SITE LOCATION: DES MOINES, IOWA
JOB NUMBER: KJ7100/0096CISCXX

Photo Number: 1

Subject: Paint spill area south of facility.

Photographer: Brooks

Date/Time: 2/9/96 @ 0826 hrs

Direction: Northwest

Photo Number: 2

Subject: Former drum storage area south of facility.

Photographer: Brooks

Date/Time: 2/9/96 @ 0827 hrs

Direction: Southwest

Extra photos

E. E. file

07-9602-046C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

October 17, 1995

MEMORANDUM

OFFICE OF
THE REGIONAL ADMINISTRATOR

SUBJECT: Cota Industries, Inc., Des Moines, Iowa

FROM: Ilene Munk
Assistant Regional Counsel

TO: Cecilia Tapia, Chief
Site Assessment/Cost Recovery Branch

During my rotation to the lab, Ron McCutcheon received a request from Joseph Obr of the Iowa Department of Natural Resources regarding the Cota Industries, Inc. Site in Des Moines, Iowa. Mr. Obr requested that EPA Region VII conduct the removal at this site.

Subsequently, Ron Kozel of IDNR Emergency Response sent me a package of information on the site (see attachment) which provides background on IDNR's actions against the responsible parties. On March 28, 1991, IDNR issued an Emergency Order (No. 91-HC-03) against Cota Industries, Inc, requiring the company to secure the site and conduct a site assessment. Despite a ruling in favor of IDNR at the State Supreme Court level, the responsible parties have fled the state, leaving no assets behind for remediation of the site. Now the state is requesting our assistance in this matter.

I am forwarding the attached documentation for your review and action. I have also written to Mr. Kozel notifying him that the request has been forwarded to you for prioritization.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

October 17, 1995

OFFICE OF
THE REGIONAL ADMINISTRATOR

Mr. Ron Kozel
Emergency Response
Iowa Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319

Dear Mr. Kozel:

On August 30, 1995, you mailed me a package of documents related to the Cota Industries, Inc. Site in Des Moines, Iowa. At that time, I was completing a rotation in the Emergency Planning and Response Branch of EPA Region VII. I have subsequently completed this rotation and returned to the Office of Regional Counsel.

In addition, EPA Region VII has just implemented a reorganization. As a consequence, managerial assignments have changed. Cecilia Tapia is now the Chief of the Site Assessment/Cost Recovery Branch within EPA's Superfund Division. This is the unit which reviews requests for site assessments and determines which sites receive priority for funding purposes.

Therefore, I have given the Cota Industries package to Ms. Tapia for review and action. If you have any questions, please contact her at 913/551-7733.

Sincerely,

Ilene M. Munk

Ilene Munk
Assistant Regional Counsel

cc: Cecilia Tapia

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

July 31, 1995

Mr. Ron McCutcheon
Program Manager
Emergency Response and Removal Program
USEPA Laboratory
25 Funston Road
Kansas City, Kansas 66115

Dear Mr. McCutcheon:

Your agency previously assisted our department in conducting an investigation of contamination at Cota Industries at 5512 S.E. 14th Street in Des Moines. At the time of the investigation, our department was pursing legal action against the responsible parties, in order to require cleanup of the site. Although we have won every legal battle, including a decision by the State Supreme Court, the responsible parties have fled the state, leaving no assets behind that could be used to remediate the site.

Therefore, we are requesting your agency conduct a removal action at the site. Due to the earlier investigation, we have determined three areas of concern - a spill of paint on the south end of the building, a drum-staging area south of the spill, and several trenches in a field west of the building where materials were buried for a number of years. Drums containing waste from the initial investigation are still present inside the warehouse at the site.

We have a rather extensive file that we can provide to you for your use. Please contact Ron Kozel at 515-281-8863 for further information. Thank you very much for your assistance.

Sincerely,

Joseph E. Obr, Chief
Land Quality Bureau

Wood Ramsey

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

April 25, 1991

MEMORANDUM

SUBJECT: Trip Report - Cota Industries, Des Moines, Iowa

FROM: For Wood Ramsey
OSC, EP&R/ENSV

TO: John R. Helvig
Chief, EP&R/ENSV

INTRODUCTION

At the request of the Iowa Department of Natural Resources (IDNR), the Region VII Environmental Protection Agency/Emergency Planning and Response Branch (EPA/EP&R) conducted a site investigation at Cota Industries, 5512 Southeast 14th Street, Des Moines, Polk County, Iowa. IDNR is pursuing a cleanup of the site by the potentially responsible parties and requested technical assistance from EPA/EP&R.

SITE DESCRIPTION

The Cota site is the location of a paint manufacturing and storage facility. The site property consists of approximately 10 acres, and the structures on the property include two parking areas and the manufacturing/storage building. The site is bordered on the east by Southeast 14th Street. To the south is a residential neighborhood. On the north side are two abandoned homes and beyond them is a small motel. On the west side of the building is an open field which comprises most of the property. Lovejoy Elmentary School is immediately beyound the field. The site is not fenced and, until recently, the building was not secured. According to the Des Moines Fire Department (DMFD) and INDR, children from the Lovejoy School entered the building frequently after school. The building has now been secured.

BACKGROUND/SITE HISTORY

In the mid-1950s, Cota Industries began manufacturing paints and coatings at the site. The company was started by Daniel L. Cota, who owned the company until 1984 when stock in the company was sold to a key employee (whose identity is not available), for a promissory note of over $140,000. When the employee could not pay off the promissory note, the stocks were

sold to David R. Sheets and M. Dana Kelley in 1986. After Mr. Sheets and Mr. Kelley purchased the business, the company was known as Exterior Systems or Cota Exterior System, Incorporated. The company continued under those names until 1990. During that time, the facility was used only for storage. At one time, an attempt was made by Exterior to sell the property, but apparently potential environmental problems stopped the deal. Eventually, Exterior quit making payments on the loan or the taxes.

Operations ceased at the site in October 1989. On July 1, 1990, Mr. Sheets resigned effective on October 1, 1990. On February 26, 1991, Dan Cota bought an assignment of certificate and took sole control of the property/facility. However, Cota will not become the owner until 90 days after February 26, as a condition of the assignment of certificate.

PREVIOUS INVESTIGATIONS

At some time, paint waste was dumped on the surface of the property and possibly several hundred 55-gallon drums were buried at the site. At least two investigations have been performed at the site. One of the investigations was conducted by IDNR Region V personnel. Samples of the paint-covered surface revealed concentrations of mercury as high as 190 milligrams per kilograms (mg/kg), but Extraction Procedure Toxicity analyses did not detect mercury above the detection limits. A second investigation of the site was performed by a local consultant at the request of a lending institution when an ownership change was contemplated. Apparently the transaction was never completed and IDNR has not obtained a copy of the investigation report.

According to Dan Cota drums were buried at the site, but the drums were empty prior to burial and were also crushed before being buried. The drums had allegedly contained paints/coatings, methyl ethyl ketone, mineral acids, formaldehyde, toluene, and xylene.

Storage inside the building included soda ash, hydrated lime, ethylene and propylene glycol, acryloid, muriatic acid, nitiric acid, lead acetate, various solvents, and polymers.

SITE ACTIVITIES

On March 21, 1991, Wood Ramsey, EPA/EP&R, and Joe Parrish, Region VII Technical Assistance Team (TAT), met with Ron Kozel, IDNR, and Matt Woody, DMFD, at the Cota Industries site.

A visual survey of the property was performed. The property consists of a building, which is situated on the east one-quarter of the lot and an open field to the west. At the back (on the west end) of the building is a loading dock. Near the southwest corner of the building paint waste was apparently dumped on the

surface. The paint flowed to the west and covered an area approximately 80 feet by 10 feet. To the south of the paint, scattered metal debris was observed at the surface.

The materials found on the back dock consisted largely of two types. Approximately twenty 55-gallon steel drums were present, apparently containing a granular solid resembling kitty litter. The other material appeared to be plaster which was stored in 5-gallon plastic buckets. Many of the plastic buckets were broken and the contents had been released. To the immediate west of the back dock, scattered metal debris was also found.

Starting near the northwest corner of the building, drums were found at the surface and partially buried along the north property line. The drums covered an area approximately 15 feet wide and 200 feet long (to the west). Headspace readings were taken with a photoionization detector from several of the open drums. No organic vapors were detected above background, and most of the drums at the surface appeared to be empty. Mr. Parrish brought a metal detector and conducted a brief survey; buried metal was detected in several areas in the field west of the building.

On the following day, March 22, Mr. Parrish and an additional TAT member, Durand Reiber, began a more intensive geophysical survey. A grid was established in the field to the west of the back dock starting at the base of the embankment on the west side of the dock. North-south lines were established approximately every 30 feet and each line was approximately 200 feet long. Readings were taken with a magnetometer along the lines at 30-foot intervals. Instrument readings were taken over an approximate 50-foot length beyond the last anomaly on both ends of each line. A detailed description of the grid can be found in the survey report by Mr. Parrish. The data plots furnished by Mr. Parrish shortly after the survey are attached.

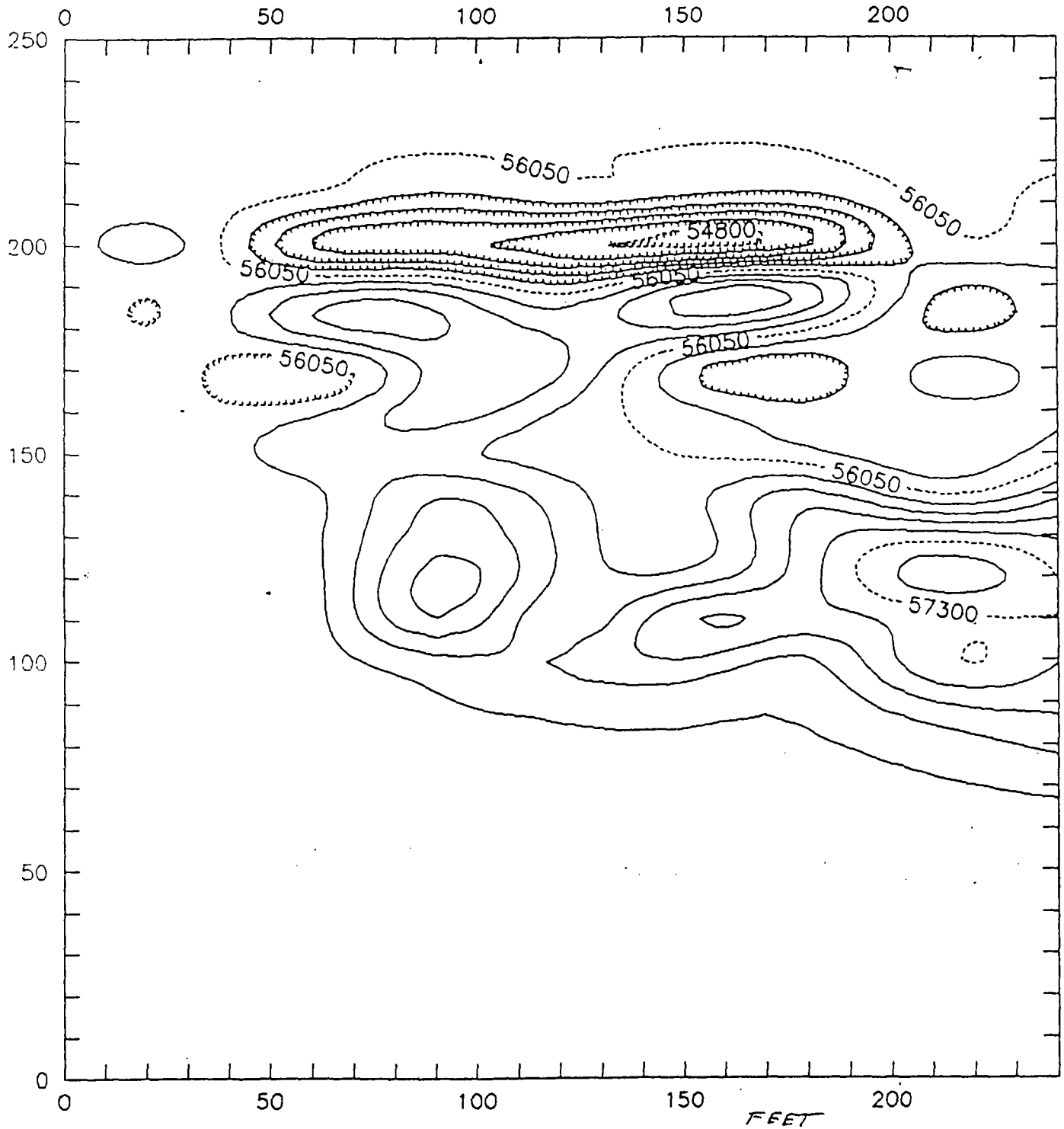
RECOMMENDATIONS

Based on the data provided by the IDNR Region V office and on the geophysical data collected by Mr. Parrish, two areas should be addressed at the site. The first area concerns the paint waste containing mercury on the ground surface. According to the Agency for Toxic Substances and Disease Registry a level of concern for mercury (in a scenario such as the Cota site) would be less than 5 parts per million (ppm). The highest value for mercury at the site is 190 ppm. To avoid exposure, the spilled paint/mercury should be removed and any soil contaminated with mercury should be excavated. If the paint and soil cannot be removed quickly, the affected area should be secured.

The other area to be addressed is the field west of the building where drums were reported to be buried. The former owner, Dan Cota, has stated that drums were buried, but the drums were emptied and crushed before they were buried. The geophysical survey and information from a former employee do confirm that drums were buried, but it is not known whether they were empty. Actions should be taken to determine whether the drums contained hazardous substances which might have impacted the surrounding soil and groundwater. Appropriate methods would include exploratory trenching by which buried drums could be exposed and the drums and surrounding soil could be sampled, or by performing soil borings at the perimeter of the burial areas identified by Mr. Parrish. The trenching should be conducted at several areas to increase confidence in the results. The soil borings should be located on all sides of the burial areas and should be drilled to groundwater. The groundwater flow direction should be determined, and soil samples collected for laboratory analysis. If contaminants are detected in the soil, monitor wells should be installed and groundwater samples collected.

Attachments

cc: Ron Kozel, IDNR



COTA DRUM

DRAFT

MAGNETIC SURVEY

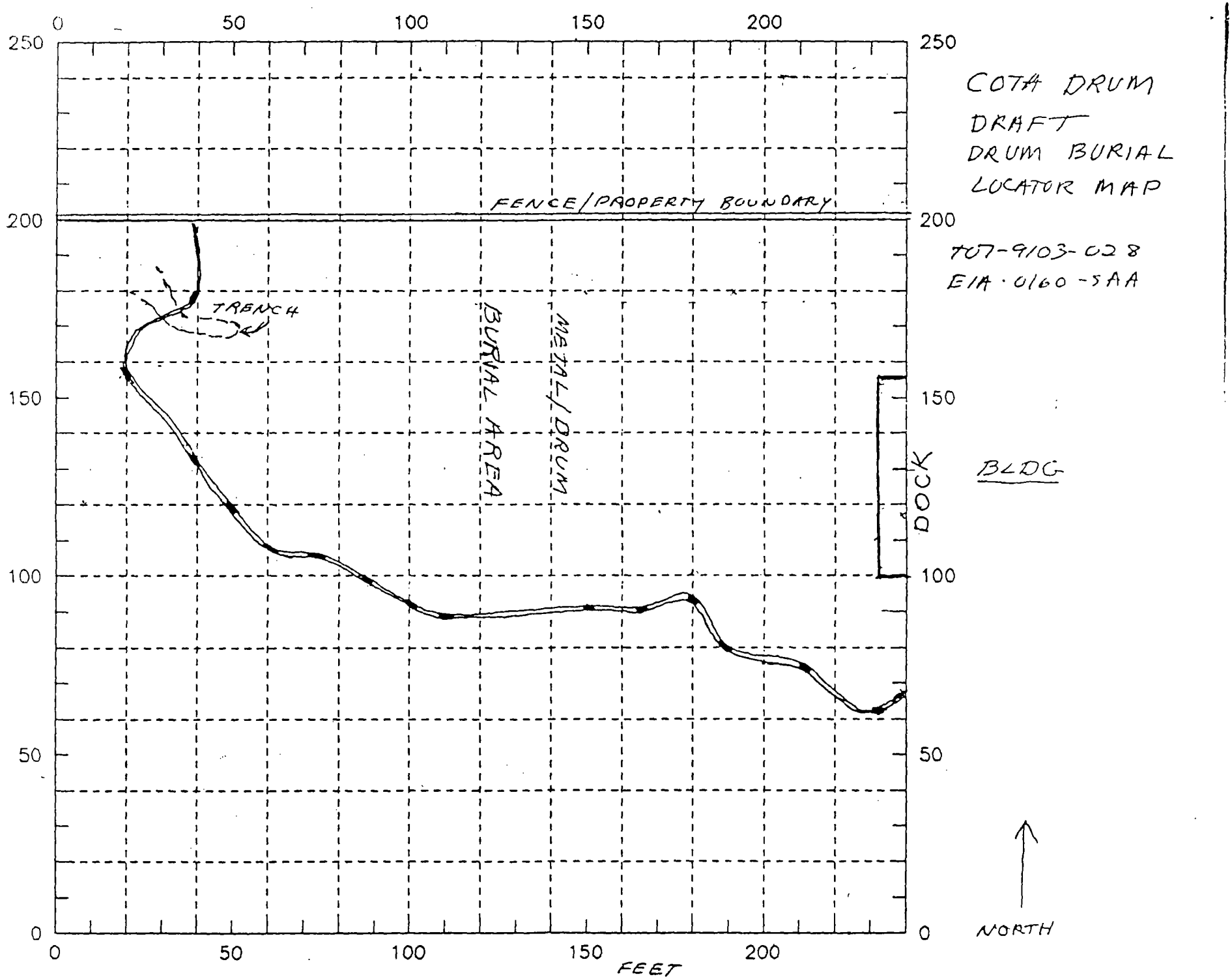
MAP.

707-9103-028

EIA-0160-SAA

CONTOUR INTERVAL

= 250 NT



COTA DRUM

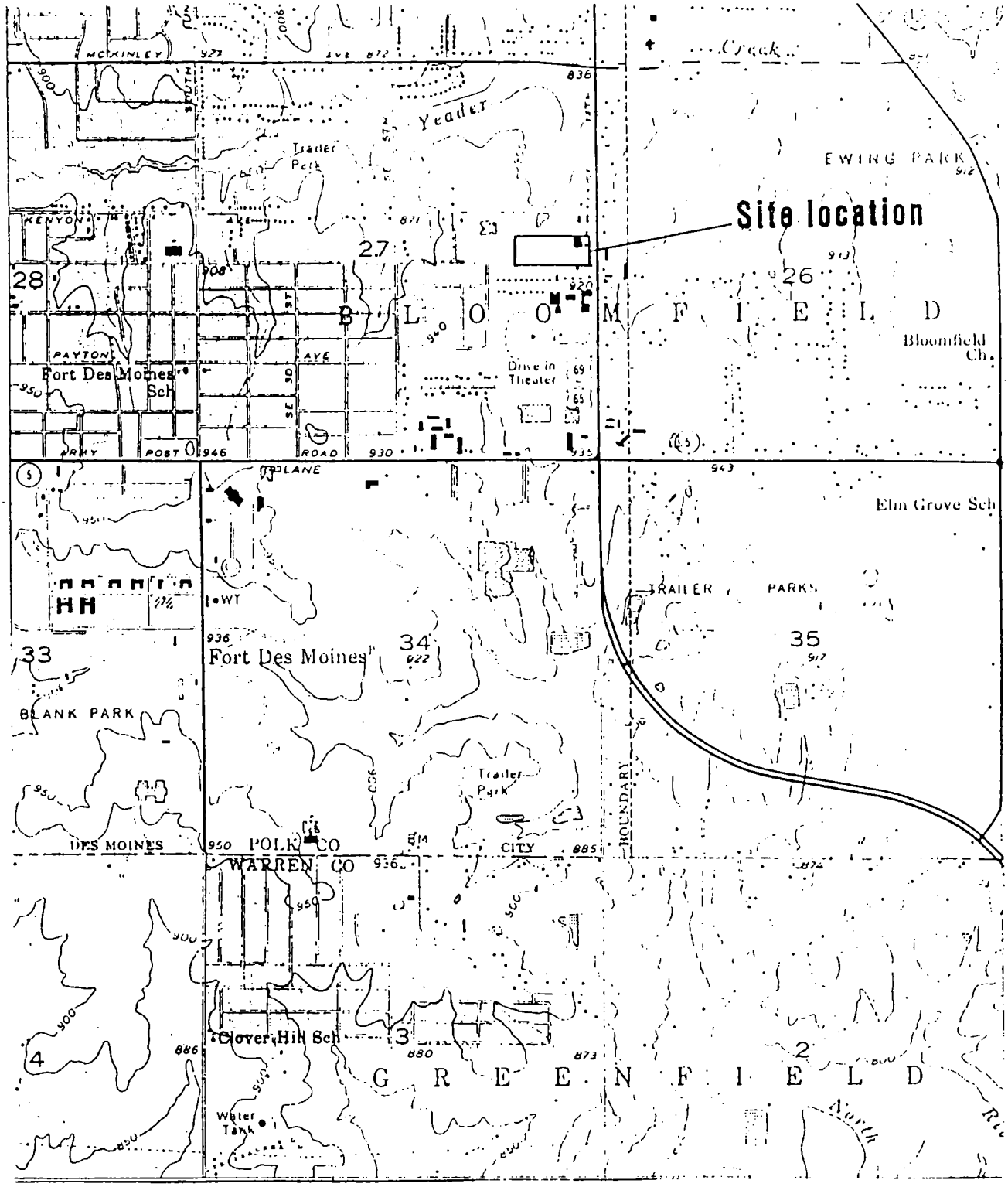
DRAFT

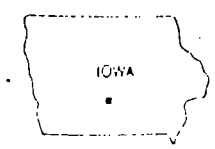
DRUM BURIAL

LOCATOR MAP

707-9103-028

EIA-0160-5AA





QUADRANGLE LOCATION

DES MOINES SE, IOWA

SE/4 DES MOINES 15 QUADRANGLE

N4130—W9330/7 5

1956

PHOTOREVISED 1967, 1971, AND 1976

AMS 7267 II SE - SERIES V876

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

TRANSMITTAL FORM

TO: Ilene Munk
USEPA Laboratory
25 Funston Road
Kansas City, Kansas 66115

FROM: Ron Kozel
Emergency Response
Phone: (515) 281-8883
DATE: 8/30/95

.....

.....

Enclosed or attached is the following:

No.	Description
	Legal Information on Cota Industries

- ✓ For your information and use
- ✓ As requested
- ___ Review and comment
- ___ Necessary action
- ___ Please return
- ___ As noted below

REMARKS: Ilene: This is all the information that I have in my File. Mike Valde of the Attorney General's office should have any additional information on legal matters. Let me know if you need anything else.

Ron

Printed on Recycled Paper

542-0926

WALLACE STATE OFFICE BUILDING / DES MOINES, IOWA 50319 / 515-281-5145 / TDD 515-242-5967 / FAX 515-281-8895

IOWA DEPARTMENT OF NATURAL RESOURCES

EMERGENCY ORDER

IN THE MATTER OF: COTA INDUSTRIES, INC. Des Moines, Iowa	EMERGENCY ORDER NO. 91-HC-03

TO: Cota Industries, Inc.
c/o Clifford S. Swartz, Reg. Agent
550 39th Street
Des Moines, IA 50309

Daniel L. Cota
916 S. Saranac Ave.
Mesa, AZ 85208

Cota Exterior System, Inc.
P. O. Box 21255
Houston, TX 77226

David R. Sheets
5940 North Belt
Humble, TX 77376

M. Dana Kelley
13846 Chrisman
Houston, TX 77039

I. SUMMARY

This order requires you to immediately secure the hazardous condition site and to conduct an adequate site assessment.

II. JURISDICTION

This order is issued pursuant to Iowa Code section 455B.388 which authorizes the Director to issue an emergency order to terminate an emergency affecting or likely to affect the public health.

III. STATEMENT OF FACTS

1. Cota Industries, Inc. owns property described as:

> The South 10 Acres of the Southeast Quarter of the Northeast Quarter (except the West 300 feet thereof and less .4 Acres for roads); and the North One-half of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter all in Section 27, T78N, R24W of the 5th P.M. now included in and forming a part of the City of Des Moines, Iowa.

and locally known as 5512 SE 14th Street, Des Moines, Iowa.

2. The company operated a manufacturing facility producing paints, resins, glazes, sealants, and other coatings, including

asbestos bonding/acoustic coatings. Various chemicals or compounds, including formaldehyde, methyl ethyl ketone, soda ash, toluol, other solvents, polymers, muriatic acid, powdered lead, propylene glycol, zinc, cadmium, mercury, and asbestos were used in the manufacturing processes. Daniel L. Cota was the founder and principal shareholder of said corporation from the mid-1950s through 1984, and David R. Sheets and M. Dana Kelley, d/b/a Exterior Systems or Cota Exterior System, Inc., were officers of said corporation from 1986 to 1990, and were reportedly purchasing the corporation. The corporation is currently delinquent in filing an annual report but is still on file with the Iowa Secretary of State and has not been deleted. Mr. Cota is regaining ownership of the property in question.

3. The Department has evidence that wastewater containing the above constituents was routinely disposed on the ground of said property, and that barrels or other containers containing such materials have been buried on the property. Investigation within the last two weeks indicates that a building on the property was unsecured and contained such chemicals, and that the public, including children were exposed to the chemicals. Metal drums are scattered about the site. A multicolored stain, solidified paint, that killed vegetation was coming from the building, and the property is bordered by a marshy area that is near an elementary school. High levels of mercury have reportedly been found in the soil. Groundwater in the vicinity is reportedly at 9-15'.

4. The Department and local officials have attempted to have the responsible parties secure the site from the public and assess the level of contamination at and around the site, to no avail.

5. The above-cited substances are "hazardous substances" as defined by Iowa Code section 455B.381(1), and this situation creates an immediate or potential danger to the public health and safety and to the environment.

IV. CONCLUSIONS OF LAW

Iowa Code chapter 455B, Division IV, Part 4, defines "hazardous condition" as any situation involving the actual or imminent release of a hazardous substance to the environment which creates an immediate or potential threat to the public health or safety or to the enviroment. Iowa Code section 455B.388(1) authorizes an emergency order to abate an emergency likely to affect the public health.

V. ORDER

THEREFORE, you are hereby ordered to take immediate action to abate this emergency. Such action shall include:

1. Immediate construction and maintenance of a secure fence around the entire property boundary to prevent unauthorized entry onto the site.

2. By May 30, 1991, through a registered professional engineer, an expert in the field of hydrology, or other qualified person, conduct a site assessement to determine the types, amounts, and sources of contaminants present on the site, the hydrogeological characteristics of the site, and the vertical and horizontal extent of contamination, and report the results of the site assessment and recommended remedial action to the Department. By April 15, 1991, notify the Department of the consultant retained to perform the assessment, and by April 30, 1991, submit a site assessment plan of study to the Department for approval.

3. This Order will be amended to direct necessary remedial action determined as a result of the site assessment or any other information obtained by the Department.

4. These directives are in addition to any other directives by local officials regarding security and cleanup of the building.

VI. APPEAL RIGHTS

This Order is binding and effective immediately and until the Order is modified or vacated by the Environmental Protection Commission or by a District Court. You may request a stay of the Order by contacting the Director by telephone or by delivery of a written request for a stay to the Department. Upon request for a stay, a hearing will be scheduled within five days.

IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER
ISSUED TO: Cota Industries, Inc.

Any questions regarding this order should be directed to:

Mark Landa
Iowa Department of Natural Resources
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319-0034
515/281-6243

LARRY J. WILSON, DIRECTOR
IOWA DEPARTMENT OF NATURAL RESOURCES

Dated this 28 day of March, 1990

90184DNR0022

IOWA DEPARTMENT OF NATURAL RESOURCES
Legal Services Bureau

DATE: April 1, 1991

TO: Mike Murphy
Al Stokes
Ron Kozel

FROM: Mark Landa

SUBJECT: COTA Industries

I spoke with Mr. Daniel Cota about Emergency Order No. 91-HC-03. He obtained a copy of the Order from his Des Moines attorney. He told me:

1. He is not financially able to fence the property which he estimates will take 3300 feet of fence to enclose.

2. He obtains possession of the property on June 20, 1991. He is willing, at that time to enter the property and get a bulldozer out there to remove the contaminated soils in the wastewater spill area and the barrels and one and five gallon cans which were buried on the property. He has no money to do a full scale site investigation.

He offered the following information about the company and its activities while he was the owner:

1. Barrels, one and five gallon cans and "tin cans" were disposed of on the property thirty years ago. He hired Macanitch from Norwalk to bury the containers on the property with a bulldozer. These containers did not hold solvents. They contained acrylic and water based materials. The drums which held the solvents were purchased from Barton solvents and were returned to that company. Other containers were sold to Des Moines Barrel and Drum for refurbishing.

2. Most of the one and five gallon containers held plastic resins which had hardened and were not usable. No product was disposed of at the site.

3. There is an area where employess were directed to clean out five gallon buckets and to dump the wash water onto the site. Pigments with a glycol base have been dumped in the building. There is also located in the building a shipment of product which was frozen during transport and was returned to the plant. Off spec product has been taken to the Metro landfill.

4. Solvents have been allowed to evaporate in 5 gallon buckets with the building. These containers have sand or silica in thebottom of the bucket.

5. Daniel Cota purchased the site personally in 1958. The business was incorporated in 1961. There were 100 shareholders. In December 1984 he sold his controlling stock in the business to Merideth Stubbe. She ran the business until she sold it to Kelley and Sheets from Texas in 1986. She stayed on until February 1989 as plant manager at which time she was fired. The business continued to run until December 1989.

Cota spends up to seven months a year in Mesa, Arizona. He lives with his daughter when he is Des Moines. She lives at 2111 Merle Hay Road.

IOWA DEPARTMENT OF NATURAL RESOURCES
Legal Services Bureau

DATE: April 3, 1991

TO: Mike Murphy
Al Stokes
Ron Kozel

FROM: Mark Landa

SUBJECT: Cota Industries

I spoke with Clifford Swartz and Merideth Stubbe today. Mr. Swartz is the registered agent for Cota Industries, Inc. Ms Stubbe is a former owner of the company.

Swartz told me that he has transmitted a copy of the order to Mr. Kelly and Sheets who are in Texas. He stated that he doubts if they will comply. He doubts they will even contact us. In other matters involving ~~the~~ these guys they have claimed that they are not liable for the actions of the company because they were directors and officers , never shareholders, and are not personally liable for any actions on behalf of the company. He said that this will probably be their positionin this case and not to expect them to contact us.

Ms. Stubbe was employed in some clerical position from 1970 to 1984 when she purchased stock from Cota. From December 27, 1984 to July 1986 she owned and operated Cota Industries. In July 1986 she sold the company to Kelly and Sheets and remained on as a salesperson until February 1989. Her work phone number today is 254-0670.

She stated to me that she knows nothing of what occurred at this site prior to 1970. She is unaware of any disposal activities. The pictures of the empty barrels that were shown on the news surprised her. Those barrels were not at the site when she left. The two owners from Texas never came to Iowa to run the business. They operated from Texas. This was also related to me by Cliff Swartz.

With regard to the operation of the business, she stated that the company manufactured stucco wall coverings. They were a mixture of latex paint, various tints, some solvents and sometimes asbestos. She is unaware of the disposal of off-spec products. There has been product which was frozen which was returned to the company and which has been stored at the site in the building. This is in 5 gallon containers. Wash water was dumped on the site.

She told me that the EPA went to the site last year in late summer and made an inspection. I am not aware of any report on this inspection. We should try to obtain one.

She is now working in some clerical position for Kininger Company. She said that she has no money.

CONFIDENTIAL LITIGATION REPORT

Prepared by Mark Landa

NOTE: Portions of this report are confidential.

I. SUMMARY

Cota Industries, Inc. manufactured industrial paint products and stucco wall coverings at its facility located at 5512 SE 14th Street in Des Moines from 1957 to 1989. Periodically the company disposed of paint wastes, off-specification paints, raw materials and chemicals on property adjacent to the manufacturing facility. The Department has issued Emergency Order No. 91-HC-03 which requires the company and company officials to erect a fence around the property and to hire a consultant and conduct a site investigation to determine the extent of contamination. The Department requests that this matter be referred and that the Attorney General seek to compel the parties to comply with the Order.

II. ALLEGED VIOLATOR

Cota Industries, Inc.
c/o Clifford S. Swartz, Reg. Agent
550 39th Street
Des Moines, IA 50309

Cota Exterior System, Inc.
P.O. Box 21255
Houston, Texas 77226

M. Dana Kelley
13846 Chrisman
Houston, Texas 77039

Daniel L. Cota
916 S. Saranac Ave.
Mesa, Arizona 85208

David R. Sheets
5940 North Belt
Humble, Texas 77376

Meredith Stubbe
Des Moines, IA

III. ALLEGED VIOLATIONS

A. Facts (Overview)

There is conflicting information concerning the date that the operation of this facility began. It is clear, however, that Mr.

Daniel Cota began producing commercial paints and wall coverings including Visegrip, Visepaint, pool glaze, pool paint, asbestos bonding and acoustic coatings, and memoflex, a rubbery paint used to seal cracks in buildings, before the incorporation of Cota Industries, Inc. in 1961. The corporation has been located at 5512 SE 14th Street in Des Moines since its creation.

The company consists of one building and approximately 10 acres of real property. Within the building is located the dry material mix room, the plastic mix room, the paint mix room, the pigment room, the sample room and a large storage area. A house which adjoins the facility was used by the company as an office. Located directly to the west of the facility is Lovejoy Elementary School.

Cota Industries produced various paint and wall coverings, including stucco, by mixing ingredients purchased in bulk. The base for most of the products was a white latex paint which was mixed with tints and chemicals, or solids in accordance with company specifications or the specifications of private contractors. The mixing took place in a 400 gallon metal mixing tank into which was dumped the raw materials. After each batch was completed and placed into smaller containers, typically five gallon pails, the tank was washed out with water. The cleaning process took 25-30 minutes and resulted in the discharge of the wastewater through a pipe in a wall which drained onto the property. The wastewater flowed across the property toward the school. This area continues to exhibit signs of vegetation stress and its location is visibly obvious.

The Department has spoken with a number of former employees all of which have related stories of indiscriminate disposal of waste paints, solvents including methyl ethyl ketone and toluene, varieties of polymers, off-specification products, and other wastes on the property. The practice occurred regularly over the life of the facility and included annual "house-cleaning". There have been reports that formaldehyde, acids, and asbestos were disposed of on site in bulk. Mr. Daniel Cota has stated that 55 gallon drums, five gallon containers, and other "tin cans" were disposed of on the property but has claimed that the containers were empty.

B. Facts (Narrative Chronology)

On November 20, 1989, a complaint was received by Field Office #5 concerning the Cota property. The complainant stated that there were present on the property leaking chemical drums outside of the plant area and that some drums were strewn about the property. An investigation of the site was conducted by field staff on December 1, 1989 during which was observed a small area near the building which was used as drum storage site. The loading dock adjacent to the building also used to store drums and 5 gallon pails which were filled with a cement-like substance.

The staff returned to the site on December 13, 1989 to take pictures of the site and to collect soil samples. During the investigation a second drum storage area was located 200 feet west of the building. The drums were found to be empty. Also observed at this time was an area which was used to dispose of paint waste, wash water, and liquids. The disposal area extended down a hill to the west of the building and appeared to be the the dried remnants of the wastes dumped there.

The Department entered the property for a third time on January 16, 1990 to collect more samples. The analytical results of the samples collected during these inspections revealed the presence of mercury (90 ppm, 190 ppm, and 74 ppm), zinc (270 ppm, 570 ppm, and 5900 ppm), and a number of other heavy metals including barium, cadmium, arsenic, chromium, lead, and nickel. Additional analysis was performed in order to determine if the dried paint wastewas a regulated hazardous waste. This waste was determined not to be a hazardous waste regulated by the EPA. The Department determined that the substances were, however, present in sufficient quantities to constitute a threat to the public health and the environment.

The Department subsequently requested the owners and past owners of the site to remove contaminated soils, clean up the building which was used to store raw materials and some wastes, conduct an investigation to determine if the groundwater in the area had been contaminated, and to secure the site by placing a fence around the wastewater disposal area. No action was taken in response to these requests.

On August 23, 24 and 25, 1990 an Environmental Engineer assigned to the RCRA Monitoring Section of the EPA Environmental Compliance Branch conducted an inspection of the facility for the purpose of determining if hazardous wastes were being or had been improperly managed by the company. The area outside of the building was inspected on August 23rd and the building was inspected on the 25th. Mr. Daniel Cota and Ms. Meredith Stubbe, former owners of the company, accompanied EPA during the inspection of the building.

During the inspection a detailed list of the chemicals existing in the storage areas of the building was prepared. They included rust preventatives, petroleum distillates, paints, fiber plastic roof cements, tints, trowel finish and vise adhesives (100 - 150 five gallon containers), cement, various pigments and numerous empty containers. The facility had, by this time, been out of operation for over a year and had been vandalized. Many of the products had been poured onto to the floor.

The report of the inspection conducted by the EPA indicates that that agency observed the same conditons outside of the building as the Department. The spill area remained as did the drum storage location. Mr. Sheets, also a former owner, related that wastes had been removed from the site in January, 1990 and that

some drums were removed from the property at that time. The disposal was supervised by Ken Cota, son of Daniel Cota.

The purpose of the EPA investigation was to determine if hazardous wastes were being generated, stored or disposed of on the company property. During the investigation, Mr. Cota represented to the EPA investigator that he was to obtain ownership of the property and that he would properly dispose of any materials which were being stored within the building. The EPA took no soil or groundwater samples and did not have analyzed those materials being stored which could not be identified. The EPA did recommend that a hazardous waste determination be made prior to the disposal of any materials.

On March 16, 1991, the Department received a report of a complaint from the Des Moines Hazardous Materials Team regarding the Cota facility. The complainant stated that children were playing in the abandoned building at Cota Industries and that chemicals were present in and around the building. The Des Moines Haz Mat team went to the site and identifed the chemicals which remained at the property. All children who were identified as playing in the area of the building were contacted and advised about the nature of the chemicals present and any possible precautions to be taken if the children were exposed to them.

Since the report of this incident the Department has collected much of the information which is contained in this report regarding the past disposal activities at the site and the names and duties of those who operated this company. As a result, on March 28, 1991, the Department issued to Cota Industries, Inc., Cota Exterior System, Inc., Mr. M. Dana Kelley, Mr. Daniel L. Cota, and Mr. David R. Sheets Emergency Order No. 91-HC-03. The order requires these companys and individuals to construct and maintain a fence around the property to prevent unauthorized access to the site and to initiate an investigation to determine the amount and types of wastes disposed of on the property and the extent of the threat to the public health or safety or the environment caused by this disposal. Only Mr. Cota has responded to the order. He has stated that although he intends to cooperate with the Department he is not financially able to construct a fence to secure the site and will not conduct an investigation. He is willing, however, to remove any waste disposed of at the site.

On Monday, April 8, 1991, the Department determined that because of the threat to the public health and safety posed by this site that it would take actions to secure the site. The Department has contracted to place a fence around the entire site.

In conjunction with the actions taken by this Department, the Des Moines Haz Mat Team has obtained a committment by Mr. Daniel Cota that he will remove and properly dispose of the hazardous materials which remain in the building Mr. Cota and his son, Ken Cota, have already taken steps to insure that unauthorized persons are not able to enter this building by boarding up the windows which

have been broken and by securing all entrances. The disposal of any substances will be coordinated through this Department.

The Department, in a letter dated April 8, 1991, advised Mr. Cota that his failure to take actions to secure the property and to comply with the remainder of the order constituted violations of the order. He was further advised that the Department is authorized to enter the property for the purpose of conducting any necessary investigations and cleanup and to recover the costs incurred by the state as a result of these actions.

C. Facts (The Corporation)

Mr. Daniel Cota purchased the property upon which has been operated Cota Industries, Inc. in 1955. He began the formulation of products as principal shareholder and officer of the business in 1957. There have been reports that there were from 24 to 100 shareholders in this venture. On July 10, 1961 the company was incorporated. Cota Industries, Inc. is now and has always been the title holder of this property.

In 1984, Ms. Meredith Stubbe, an employee of Mr. Cota since 1970, purchased all of Mr. Cota's shares in the company. As partial payment for his shares, Cota received a promissory note in the amount of over $140,000. The note was secured by a pledge of the shares sold. This promissory note remains outstanding.

In 1986, Ms. Stubbe assigned her interest in the Purchase Agreement to a corporation whose principals are residents of Texas. This corporation, Cota Exterior Systems, Inc., is owned and operated by M. Dana Kelley and David Sheets. After the sale, Ms. Stubbe remained on as manager and sales person until February 1989, before the company ceased its operation several months later.

The corporation experienced financial difficulty after its sale. Mr. Cota began having difficulty collecting the scheduled payments on the promissory note which was assigned to Cota Exterior and ultimately sued the company. Mr. Cota prevailed, obtained a judgment against Cota Exterior for the amount of the promissory note outstanding but has not been able to satisfy the judgment.

During its ownership of the company, Cota Exteriors failed to pay property taxes. On February 19, 1991, Mr. Daniel Cota made a payment of $31,300 to the Polk County Treasurer and obtained a Certificate of Purchase at Tax Sale. Mr. Cota is now obligated to notify all creditors who may have an interest in the property such as liens. These creditors are given an opportunity to exercise there rights to the property during this period. Mr. Cota will obtain possession of the property in June.

D. Applicable Law

The substances and wastes determined to exist within the building and the wastes disposed of on the property constitute "hazardous substances" as defined by Iowa Code section 455B.381(1).

The presence of the substances and wastes determined to exist within the building and the wastes disposed of on the property constitutes a "hazardous condition" as defined by Iowa Code section 455B.381(2).

Iowa Code section 455B.388(1) provides that the director may issue any order necessary to terminate an emergency. Such an order is binding and effective immediately and until it is modified or vacated at a contested case hearing before the environmental protection commission or by a court.

Iowa Code section 455B.387 provides that when any hazardous condition exists the director may remove or provide for the removal and disposal of the hazardous substance at any time, unless the director determines that the removal will be properly and promptly accomplished by the owner of the facility.

Iowa Code section 455B.388(2) provides that the director may request that attorney general institute legal proceedings for a temporary or permanent injunction pursuant to section 455B.391 for purposes of enforcing an emergency order.

Iowa Code section 455B.392 provides that a person having control over a hazardous substance is strictly liable to the state of Iowa for reasonable costs incurred by the state as a result of the failure of the person to clean up a hazardous substance involved in a hazardous condition created by that person.

Iowa Code section 455B.391(2)provides that the attorney general shall, at the request of the director, take appropriate action against the person having control over a hazardous substance to recover the liablities resulting under section 455B.392.

NOTE: THIS PORTION OF THE REPORT IS CONFIDENTIAL PURSUANT TO IOWA CODE SECTION 22.7(4).

IV. RELIEF REQUESTED

A. Injunction - The Department requests that the responsible parties named in the emergency order be compelled to comply with the requirements set forth in the order.

B. Cost Recovery - As of the writing of this report the Department is in the process of hiring a contractor to install a fence around the property. If it is determined that the parties responsible are not capable of complying with the terms of the order the Department requests that the attorney general seek to recover any costs which the Department may incur in the future in order to terminate the hazardous condition which exists at this site. The attorney general should be directed to seek punitive damages if it is appropriate under the circumstances.

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

April 8, 1991

Mr. Daniel L. Cota
916 S. Saranac Ave.
Mesa, AZ 85208

SUBJECT: Emergency Order NO. 91-HC-03

Dear Mr. Cota:

I want to memorialize the substance of our conversation which took place on April 2, 1990 and to explain to you the implications of your failure to comply with the terms of the emergency order which the Department has issued to you.

During our telephone discussion on April 2nd you stated that although you are willing to cooperate with the Department you are financially incapable of complying with the order. You stated that it will require approximatley 3300 feet of fence to enclose the property identified by the Department to be of concern and that you cannot finance such an action. Furthermore, you stated that once you again obtain possession of the property you are willing to hire someone to go onto the site to uncover and remove the barrels and other containers which have been disposed of at the site but are not willing to conduct a site investigation of the type required by the order.

Your failure to secure the site with a fence and to hire a consultant to conduct an adequate site investigation constitutes a violation of the emergency order No. 91-HC-03. This Department is authorized to enter this property to remove any hazardous substance which presents a danger to the public health or the environment and may seek to recover the reasonable costs of securing the property and cleaning up the site from any responsible parties. The fact that you may be financially incapable of complying with the order may relieve you of liability for punitive damages but does not relieve you of liability for the actual costs incurred by the state if the state is required to take action.

Please be advised that you are not to take any action at the site including the removal of soils, waste, barrels, other containers, and chemicals or to disturb the site in any manner unless you obtain authorization from this Department. You may, however, take those actions which are approved by local officials such as the Des Moines Hazardous Materials Team to secure the building on the site and to properly remove and dispose of any chemicals, products or wastes which are currently being stored within the

building in accordance with any requirments imposed upon you by the County.

I have contacted the Polk County Attorney's Office and the Polk County Physical Planning Office. The property which is the subject of this matter is now and has always been the property of Cota Industries, Inc. The property is not owned by Polk County. From the information which has been provided to me thus far, by you and others, it is not clear that any of the transactions which were entered into regarding this corporation have ever been fully satisfied. Cota Industries remains listed as a corporation with the Secretary of State of Iowa and has a registered agent. The corporate officers which are listed are those persons who purchased the company from Ms. Meredith Stubbe. I understand that you obtained a judgment against these individuals and that this judgment has not been satisfied.

This Department knows of no legal impediment to your entering the property for the purpose of complying with the order. You and the other parties which are named are jointly and severally liable for the contamination which exists at this site and are responsible for compliance with the order. As I stated above, if you fail to comply and this Department takes actions to secure the site and remove the contamination each of the named parties is jointly and severally liable for the costs which are incurred.

If, upon the advice of your attorney, you decide to enter the property for the purpose of complying with the terms of the order, you are to first contact me at 515/281-6243 or Ron Kozel at 515/281-8883 prior to entering the property for that purpose.

If you have any questions about this letter or the emergency order please call me.

Sincerely,

Mark Landa
Attorney
Legal Services Bureau

cc: Al Stokes, Environmental Protection Division Administrator
Ron Kozel, DNR Emergency Response
Robert A. VanOrsdel, Attorney

AUSTIN, GAUDINEER, AUSTIN, SALMONS & SWANSON

SUITE 900

DES MOINES BUILDING

DES MOINES, IOWA 50309

TELEPHONE
(515) 243-5750
FAX: (515) 243-2908

JAMES R. AUSTIN (1908-1981)
LEE H. GAUDINEER, JR.
JAMES R. AUSTIN, JR.
CARLTON G. SALMONS
JON K. SWANSON
H. LORAINE WALLACE
PATRICK J. HOPKINS

April 12, 1991

Mark Landa
Attorney, Legal Services
Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50309

In Re: Property at 5512 S. E. 14th St.
Des Moines, Iowa

Dear Mr. Landa:

Dan Cota has contacted me regarding his pending purchase of the above captioned property and the recent complaint about contamination or enviromental problems on this property. A company, Cota Industries Inc., in which Mr. Cota was a stockholder owned this property. He sold his stock in this corporation on December 27, 1984 to Meredith Stubbe of Des Moines, Iowa. Later she sold this stock to Exterior Systems, Inc a/k/a Cota Exterior Systems, Inc. who is still the legal titleholder.

Mr. Cota is not the legal titleholder of this property nor is he in possession. This recent complaint has caused him great concern. He is retaining the services of Tony Nemgan of Patzig Laboratories to conduct a phase I site survey for him and report any enviromental problems that maybe present and, if present, the seriousness.

The Patzig report will determine whether or not he will complete the transaction and take title to this property. If you have any questions, please call.

Sincerely

Lee Gaudineer

cc: Dan Cota

Kozek

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

April 16, 1991

The Honorable Bonnie J. Campbell
Attorney General of Iowa
Hoover State Office Building
LOCAL

ATTN: David Sheridan, Environmental Law Division

RE: Cota Industries, Inc., et al.

Dear Ms. Campbell

This letter is to inform you that the Environmental Protection Commission has requested at its April 15, 1991 meeting that you initiate legal proceedings against the above-named party(s). Further information is included in the enclosed litigation report(s). We stand ready to assist in litigation or negotiation. If you have any questions, please contact appropriate legal staff of the department.

Sincerely,

Larry Wilson
Director

ATTACHMENT

cc: Referred Parties
FO5
DNR, FEER

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

April 16, 1991

The Honorable Bonnie J. Campbell
Attorney General of Iowa
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Sincerely,

Larry Wilson
Director

RECEIVED BY
MAY 15 1991
DIRECTORS OFF.

ATTACHMENT

cc: Referred Parties
FO5
DNR, FEER

I NO LONGER HAVE ANY INTERESTS IN ANY PROPERTY IN IOWA.

WALLACE STATE OFFICE BUILDING / DES MOINES, IOWA 50319 / 515 281 5145/ TDD 515-242-5967 / FAX 515-281-8895

AUSTIN, GAUDINEER, AUSTIN, SALMONS & SWANSON

SUITE 900

DES MOINES BUILDING

DES MOINES, IOWA 50309

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H. LORAINE WALLACE
PATRICK J. HOPKINS

TELEPHONE
(515) 243-5750
FAX: (515) 243-2908

May 21, 1991

Mark Landa
Attorney
Legal Services Bureau
Iowa Department of
Natural Resources
Wallace State Office Building
Des Moines, IA 50309

Re: Cota Industries, Inc.

Dear Mr. Landa:

Pursuant to our telephone conversation, I am herewith enclosing copies of the letters of notification sent to three insurance companies concerning the claim of your Department for pollution and contamination damages relative to the property at 5512 S.E. 14th Street, Des Moines, Iowa.

I believe you will find the cases very enlightening as to the insurance liability of a general liability carrier for pollution clean up. It is generally held to be an occurrence that was not intended from the standpoint of the insured and, if the policy is conditioned to "sudden and accidental" discharges, the Courts have held that "seepage over a period of years" meets this definition. Lastly, the Courts have held that even if a company provides insurance for only one year and the contamination (seepage) involves several years, that company still owes its limits of coverage because liability is joint and several.

I will keep you informed if I receive any replies.

Sincerely,

Lee H. Gaudineer

ct

Enclosures

AUSTIN, GAUDINEER, AUSTIN, SALMONS & SWANSON

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PATRICK J. HOPKINS

May 21, 1991

Home Insurance Company
59 Maiden Lane
New York, NY 10038

Re: Cota Industries
5512 S.E. 14th Street
Des Moines, IA

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dear Sir or Madam:

My firm represents Daniel Cota the former majority shareholder in the above-captioned corporation. He sold his shares of stock in this corporation in 1984. He has recently been contacted by the Iowa Department of Natural Resources concerning pollution and contamination of the land at the above address which allegedly was caused by certain chemicals utilized in its manufacturing procedure as well as methods employed by that company for disposal of waste.

While I do not represent Cota Industries, I have been informed that your company insured this corporation under a comprehensive general insurance policy from, at least, January 1, 1974 through January 1, 1979 under Policy Nos. GA4690488, GA4844121, GA9121109, GA9376374, GA9562116, and GA9889399, respectfully. If this information is correct, it would appear that your company insured Cota Industries during this period of time against the claims now being made by the Iowa Department of Natural Resources.

The purpose of this letter is to place your company on notice of these claims. I do not have any further definitive information concerning the time periods of the alleged actions resulting in the claimed contamination and pollution nor as to the amount of the claim or whether it is only for on site claims to the

exclusion of off site claims. You can obtain further information concerning this claim, if you desire, by directly contacting Mark Landa, attorney, Legal Services Bureau, Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50309.

Sincerely,

Lee H. Gaudineer

ct

AUSTIN, GAUDINEER, AUSTIN, SALMONS & SWANSON

SUITE 900

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DES MOINES, IOWA 50309

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PATRICK J. HOPKINS

TELEPHONE
(515) 243-5750
FAX: (515) 243-2908

May 21, 1991

United States Insurance Company
211 Mt. Ary Road
Basking Ridge, NJ 07920

Re: Cota Industries
5512 S.E. 14th Street
Des Moines, IA

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dear Sir or Madam:

My firm represents Daniel Cota the former majority shareholder in the above-captioned corporation. He sold his shares of stock in this corporation in 1984. He has recently been contacted by the Iowa Department of Natural Resources concerning pollution and contamination of the land at the above address which allegedly was caused by certain chemicals utilized in its manufacturing procedure as well as methods employed by that company for disposal of waste.

While I do not represent Cota Industries, I have been informed that your company insured this corporation under a comprehensive general insurance policy from, at least, January 1, 1980 through February 15, 1985 under Policy Nos. 5401218861, 540476662, 5404869243, 5404872672, 5406409359, and 5406409359, respectfully. If this information is correct, it would appear that your company insured Cota Industries during this period of time against the claims now being made by the Iowa Department of Natural Resources.

The purpose of this letter is to place your company on notice of these claims. I do not have any further definitive information concerning the time periods of the alleged actions resulting in the claimed contamination and pollution nor as to the amount of the claim or whether it is only for on site claims to the

exclusion of off site claims. You can obtain further information concerning this claim, if you desire, by directly contacting Mark Landa, attorney, Legal Services Bureau, Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50309.

Sincerely,

Lee H. Gaudineer

ct

AUSTIN, GAUDINEER, AUSTIN, SALMONS & SWANSON

SUITE 900

DES MOINES BUILDING

DES MOINES, IOWA 50309

JAMES R. AUSTIN (1908-1981)
LEE H. GAUDINEER, JR.
JAMES R. AUSTIN, JR.
CARLTON G. SALMONS
JON K. SWANSON
H. LORAINE WALLACE
PATRICK J. HOPKINS

TELEPHONE
(515) 243-5750
FAX: (515) 243-2908

May 21, 1991

CNA Insurance
939 Office Park Road
West Des Moines, IA 50265

Re: Cota Industries
5512 S.E. 14th Street
Des Moines, IA

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dear Sir or Madam:

My firm represents Daniel Cota the former majority shareholder in the above-captioned corporation. He sold his shares of stock in this corporation in 1984. He has recently been contacted by the Iowa Department of Natural Resources concerning pollution and contamination of the land at the above address which allegedly was caused by certain chemicals utilized in its manufacturing procedure as well as methods employed by that company for disposal of waste.

While I do not represent Cota Industries, I have been informed that your company insured this corporation under a comprehensive general insurance policy from, at least, January 15, 1985 through January 15, 1986 under Policy Nos. 100223256 and 100223356, respectfully. If this information is correct, it would appear that your company insured Cota Industries during this period of time against the claims now being made by the Iowa Department of Natural Resources.

The purpose of this letter is to place your company on notice of these claims. I do not have any further definitive information concerning the time periods of the alleged actions resulting in the claimed contamination and pollution nor as to the amount of the claim or whether it is only for on site claims to the

exclusion of off site claims. You can obtain further information concerning this claim, if you desire, by directly contacting Mark Landa, attorney, Legal Services Bureau, Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50309.

Sincerely,

Lee H. Gaudineer

ct

AUSTIN, GAUDINEER, AUSTIN, SALMONS & SWANSON

SUITE 900

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CARLTON G. SALMONS
JON K. SWANSON
H. LORAINE WALLACE
PATRICK J. HOPKINS

TELEPHONE
(515) 243-5750
FAX (515) 243-2908

May 28, 1991

David R. Sheridan
Assistant Attorney General
Hoover State Office Building
Des Moines, IA 50319

Re: Cota v. Iowa Environmental Protection Commission, et al.

Dear Mr. Sheridan:

I was driving down Southeast 14th Street recently and passed the real property the subject of this litigation. I noticed that the property was fenced in which apparently your clients accomplished after the Emergency Order was entered and which is at issue in this case.

Since I had not seen the property before, I stopped briefly to look around out of curiosity. I noticed that a loading dock door on the south of the property has some broken windows and that the door is not secure. It appears to me that if an individual, especially a child, wanted to gain access, this could be accomplished given the fact that this loading dock door with broken windows remains ajar.

I write to you only as an individual and not truly as the attorney for Mr. Cota, the Petitioner. If the property is as seriously contaminated with chemicals as your Emergency Order suggests, then I would be remiss as a citizen for not pointing out, as I do in this letter, that means of access to the premises still exist for children and others since the property is not secure.

Because the state has now taken jurisdiction over the premises fencing it in, and because Mr. Cota no longer owns the premises, I suggest to you that you have your clients undertake further efforts to secure the property more efficiently so that no potential jeopardy or hazard will befall children or anyone else.

Sincerely,

Carlton G. Salmons

ct

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

July 12, 1991

Mr. Clifford Swartz
Brick, Seckington, Bowers, Swartz & Gentry
550 39th Street
Des Moines, Iowa 50312

Via FAX

Re: Cota Industries, Inc.

Dear Mr. Swatrz:

I am writing to you, once more, because you are listed as the registered agent for the company, Cota Industries, Inc. in the records of the Iowa Secretary of State.

Please be advised that the property upon which Cota Industries formerly operated a business is still owned by that company. Although Mr. Daniel Cota, former principal shareholder of Cota, has paid some of the back taxes owed on the property he has failed to pay the remaining taxes and, through his attorney, has disavowed any ownership interest in the property. Cota Industries, therefore, remains the recorded owner of the property.

Because Cota Industries owns the property and because you are the registered agent of that company, I am advising you that the Environmental Protection Agency, upon the request of the Iowa Department of Natural Resources, seeks to enter the property for the purpose of conducting a site investigation on Monday, July 15, 1991. The investigation will include the sampling of soils and groundwater on the property. It is anticipated that this investigation will begin on Monday morning and may be completed within five days. It may take more time depending upon the results of the initial work.

During the course of the investigation it may be necessary to remove barrels or other containers which contain wastes. If this is necessary, the EPA intends to store the containers in the building which is located on the property. The building will be secured to reduce the likelihood of exposure to the public from these wastes.

With regard to the building, it is my understanding that the keys to the building are currently in the possession of Mr. Ken Cota. The Department will take measures to insure that no one, including Mr. Cota, has access to that building. These measures will

include the changing of the locks and some repair of the structure.

The Department requests the company's cooperation during this investigation and, by this letter, seeks written authorization to enter the property soley for the purpose of conducting the investigation which I have described. I request that your written response be faxed to me, today, because of the short period of time left before the investigation is to commence. My FAX number is 281-8895. If you have any questions, please contact me at 281-6243. Thank you in advance for your prompt response.

Sincerely,

Mark Landa
Attorney
Legal Services Bureau

cc: David Sherdian, Iowa Attorney General's Office
Ron Kozel, DNR Emergency Response
Liza Ovrom, Polk County Attorney's Office

BRICK, SECKINGTON, BOWERS, SWARTZ & GENTRY, P. C.
ATTORNEYS AND COUNSELORS AT LAW

DES MOINES OFFICE
JOSEPH S. BRICK
PATRICK W. BRICK
JAMES E. BRICK
NOLDEN GENTRY
JAMES R. BOWERS
CLIFFORD S. SWARTZ
BRUCE H. STOLTZE
MARK R. SCHULING
DOUGLAS F. STASKAL
THOMAS J. LEVIS
AMY S. BEATTIE
MARY S. BERNABE

39TH AND INGERSOLL
550 THIRTY-NINTH STREET
DES MOINES, IOWA 50312
TELEPHONE (515) 274-1450
TELECOPY (515) 274-1488

BRANCH OFFICE
LARRY SECKINGTON
326 56TH STREET
DES MOINES, IOWA 50312
TELEPHONE (515) 255-4085

OF COUNSEL
T. JAMES McDONOUGH

July 12, 1991

TRANSMITTED BY FACSIMILE
281-8895

Mark Landa
Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319

Re: Cota Industries, Inc.

Dear Mr. Landa:

I am writing this in response to your letter of July 12, 1991 regarding your request for permission to enter onto the property of Cota Industries, Inc. on S. E. 14th Street in Des Moines, Iowa.

Mark, I am afraid I am going to disappoint you with this letter. As the Registered Agent of this corporation, I do not have any authority under Iowa law or the Bylaws of the corporation to act on behalf of the corporation in any capacity, except to receive service of process. In fact, it is my understanding from checking with the Office of Secretary of State that Cota Industries, Inc. has been formally cancelled by the Secretary of State as an Iowa corporation. I would assume that cancellation would terminate my agency under Iowa law.

If there was any way that I could cooperate with you, I would be more than happy to do so. As I am sure you are aware, the primary principals in this corporation appear to have abandoned the corporation; at the very least, I have had no response from them to correspondence in the past year or so.

If you want to give me a call about this, please do not hesitate to do so.

Very truly yours,

Clifford S. Swartz

CLIFFORD S. SWARTZ

CSS/dr

(c+a

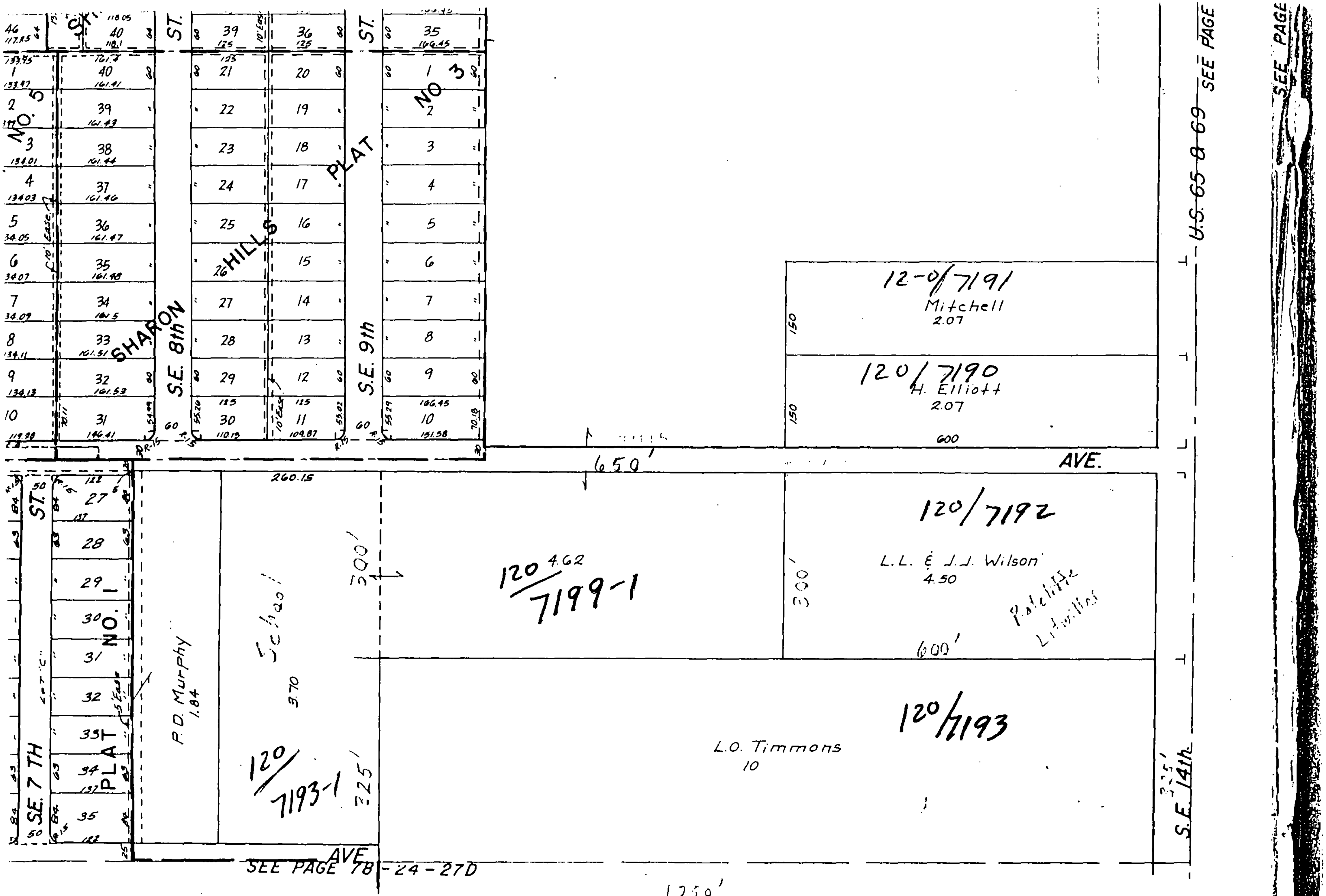
DISTRICT 12-0 PARCEL 07199-001-000 MAP 0B182 DATE 04/08/91
STAT (TAXABLE) CLAS (RES) SCH (DM IND) BFS 000
LND VALU (10170) DWELL (0) FRM BLDG (0) TOTAL (10170)
NBR ACRES (2.500) AG LAND VALUE (0) AG LAND CREDIT (.00)
PROPERTY OWNERS
RECORDED ON 07/10/62 BOOK 3436 PAGE 69
T 1 COTA INDUSTRIES INC
PROPERTY ADDRESS
KENYON AV, DES MOINES, IA 50315
MAIL TO 5512 S E 14TH, DES MOINES, IA 50320
LEGAL DESCR
01 -EX W 300 F- N 1/2 SW 1/4 SE 1/4 NE 1/4
02 SEC 27-78-24
* * END OF DISPLAY * *

(c+a.1

DISTRICT 12-0 PARCEL 07193-000-000 MAP 0B182 DATE 04/08/91
STAT (TAXABLE) CLAS (IND) SCH (DM IND) BFS 000
LND VALU (109100) DWELL (74200) FRM BLDG (0) TOTAL (183300)
NBR ACRES (7.330) AG LAND VALUE (0) AG LAND CREDIT (.00)
PROPERTY OWNERS
RECORDED ON 08/14/61 BOOK 3356 PAGE 101
T 1 COTA INDUSTRIES INC
PROPERTY ADDRESS
5512 SE 14TH ST, DES MOINES, IA 50320
LEGAL DESCR
01 -EX W 300 F- S 10 A SE 1/4 NE 1/4 LESS .40 A RD
02 SEC 27-78-24
* * END OF DISPLAY * *

DISTRICT 12-0 PARCEL 07192-000-000 MAP 0B182 DATE 04/08/91
STAT (TAXABLE) CLAS (COMM) SCH (DM IND) BFS 000
LND VALU (100740) DWELL (25510) FRM BLDG (0) TOTAL (126250)
NBR ACRES (4.270) AG LAND VALUE (0) AG LAND CREDIT (.00)
PROPERTY OWNERS
RECORDED ON 00/00/00 BOOK 0 PAGE 0
T 1 RATCLIFF, LUCILLE
279-0979 RECORDED ON 11/04/83 BOOK 5302 PAGE 84
C 1 LITWILLER, JIMMY D
287-5160 PROPERTY ADDRESS
5402 SE 14TH ST, DES MOINES, IA 50320
LEGAL DESCR
01 N 1/2 SE 1/4 SE 1/4 NE 1/4-EX E 60F & N 20F-
02 SEC 27-78-24
* * END OF DISPLAY * *

DISTRICT 12-0 PARCEL 07191-000-000 MAP 0B182 DATE 04/08/91
STAT (TAXABLE) CLAS (COMM) SCH (DM IND) BFS 000
LND VALU (64130) DWELL (25300) FRM BLDG (0) TOTAL (89430)
NBR ACRES (2.070) AG LAND VALUE (0) AG LAND CREDIT (.00)
PROPERTY OWNERS
RECORDED ON 00/00/00 BOOK 0 PAGE 0
T 1 MITCHELL, LEE M
T 2 MITCHELL, MARGARET
PROPERTY ADDRESS
5790 SE 14TH ST, DES MOINES, IA 50320
MAIL TO 1440 LOCUST ST, DES MOINES, IA 50309
LEGAL DESCR
01 N 150 F N 300 F S 326.6 F W 600 F E 660 F N 1/2
02 SE 1/4 NE 1/4 SEC 27-78-24


SHARON HILLS PLAT NO. 5
SHARON HILLS PLAT NO 3
PLAT NO. 1
S.E. 8th ST.
S.E. 9th ST.
SE 7 TH ST.
S.E. 14th
AVE.
AVE.
U.S. 65 & 69
SEE PAGE
SEE PAGE 78-24-27D
12-0/7191
Mitchell
2.07
120/7190
H. Elliott
2.07
120/7192
L.L. & J.J. Wilson
4.50
120 4.62 / 7199-1
120/7193
L.O. Timmons
10
120/7193-1
P.D. Murphy
1.84
School
3.70
650'
300'
325'
600
600'
1250'
150
150
260.15

IN THE IOWA DISTRICT COURT
FOR POLK COUNTY

DANIEL L. COTA, Petitioner, vs. IOWA ENVIRONMENTAL PROTECTION COMMISSION and IOWA DEPARTMENT OF NATURAL RESOURCES, Respondents.	CASE NO. AA 1795 RULING ON MOTION TO DISMISS FOR LACK OF JURISDICTION

On June 10, 1991, defendant's motion to dismiss for lack of jurisdiction came on for hearing before this Court. Petitioner appeared by his attorney, Carlton G. Salmons. Respondents Iowa Environmental Protection Commission and Iowa Department of Natural Resources appeared by attorney David R. Sheridan, assistant attorney general for the state of Iowa. After hearing the arguments of counsel, reviewing the relevant pleadings and the court file, the Court now enters the following ruling. This is a ruling on petitioner's request for judicial review and defendant's motion to dismiss for lack of jurisdiction.

STATEMENT OF THE CASE

On March 28, 1991, the director of the Iowa Department of Natural Resources issued Emergency Order 91-HC-03, In the Matter of Cota Industries, Inc., Des Moines, Iowa, pursuant to Iowa Code section 455B.388. The emergency order requires petitioner to immediately secure the hazardous condition site and to conduct an adequate site assessment. The order expressly states that it is

immediately binding and effective until modified or vacated by the Environmental Protection Commission or by the district court. The order goes on to state that petitioner may request a stay of the order by contacting the director and, if requested, a hearing will be held within five days.

Petitioner filed a petition for judicial review with the district court without appealing the director's action within the agency or requesting a stay. Respondents filed this motion to dismiss.

DISCUSSION

Judicial review of the commission's actions is governed by Iowa Code sections 455B.389 and 17A.19. Iowa Code section 455B.389 provides that "[j]udicial review of any order or other action of the commission or of the director may be sought in accordance with the terms of chapter 17A." This means that judicial review of the commission's actions should be determined by applying Iowa Code chapter 17A, in particular Iowa Code section 17A.19 which provides:

> Except as expressly provided otherwise by another statute referring to this chapter by name, the judicial review provisions of this chapter shall be the exclusive means by which a person or party who is aggrieved or adversely affected by agency action may seek judicial review of such agency action.

The meaning of Iowa Code section 17A.19 is that judicial review of an agency action will be in accordance with Iowa Code chapter 17A, unless the agency statute expressly states that some other statute will apply instead of Iowa Code section 17A.19. Petitioner argues that Iowa Code sections 455B.388(1) and

455B.389 expressly provide exception to Iowa Code section 17A.19's exhaustion requirements. Contrary to petitioner's argument, Iowa Code section 455B.389 expressly states that Iowa Code chapter 17A should be followed, i.e., judicial review is determined by section 17A.19. Iowa Code section 455B.388(1) never even mentions Iowa Code chapter 17A. There cannot be expressed exception to a statute when the statute is not even mentioned. Therefore, Iowa Code chapter 17A governs.

Applying Iowa Code section 17A.19, the Court has jurisdiction to review agency action when:

> A person or party who has exhausted all adequate administrative remedies and who is aggrieved or adversely affected by any final agency action is entitled to judicial review thereof under this chapter. . . . A preliminary, procedural or intermediate agency action is immediately reviewable if all adequate administrative remedies have been exhausted and review of the final agency action would not provide an adequate remedy.

Iowa Code section 17A.19(1) (emphasis added). The petitioner must show that he exhausted all adequate administrative remedies and that "review of the final agency action would not provide an adequate remedy." Pro Farmer Grain v. Dept. of Agriculture, 427 N.W.2d 466, 467 (Iowa 1988) (quoting Richards v. Iowa State Commerce Commission, 270 N.W.2d 616, 619-620 (Iowa 1978)); 17A.19(1). Petitioner has not raised any issues about the review of final agency action.

Before applying the exhaustion requirement of section 17A.19, two conditions must be met. "First, an administrative remedy must exist for the claimed wrong. Second, the statute must expressly or impliedly require that remedy to be exhausted

before court intervention." Aschan v. State, 446 N.W.2d 791, 793 (Iowa 1989). We have already determined that exhaustion of administrative remedies is required because Iowa Code section 455B.389 incorporates Iowa Code chapter 17A.

As to the first prong, administrative remedies did exist. The commission's rule, 567 IAC 7.1, adopts 561 IAC chapter 7. The petitioner failed to exhaust two available remedies. First, the petitioner could have appealed the decision within the agency. 561 IAC 7.5(1). Second, the petitioner could have requested the agency to stay the emergency order. 561 IAC 7.17(1).

Thus, the prerequisites for exhaustion are met. Iowa Code section 17A.19(1) requirement of exhaustion must be met unless petitions can show some exception. Petitioner admits that he has not exhausted the administrative remedies so petitioner must demonstrate he falls within some exception. This Court has already rejected petitioner's argument that 455B.388 and 455B.389 provide exception to the exhaustion requirement.

Petitioner also argues that he is excepted from exhausting his administrative remedies because he is challenging the constitutionality, facially and as applied, of Iowa Code section 455B.388(1). An agency cannot determine a facial constitutional challenge of a statute. Tindal v. Norman, 427 N.W.2d 871 (Iowa 1988); Salsbury Laboratories v. Iowa Department of Environmental Quality, 276 N.W.2d 830, 836 (Iowa 1979). Raising solely a facial constitutional challenge to a statute bars the exhaustion requirement. Tindal, 427 N.W.2d at 872. Petitioner raises more

than just a facial constitutional challenge. With the raising of other issues, the exhaustion requirement still must be met. The Salsbury Court states:

> Unless it is the only issue raised, the facial constitutional challenge, even though collateral, may be mooted by a favorable agency adjudication of fact or law. . . . Avoidance of constitutional issues except when necessary for proper disposition of controversy is a bulwark of American jurisprudence.

Salsbury, 276 N.W.2d at 837. The petitioner raises issues as to the application of Iowa Code section 388(1) and issues as to whether Iowa Code sections 455B.388(1) and 455B.389 provide exceptions to 17A.19's exhaustion requirement. Petitioner also argues that he does not have control over the hazardous substance within the meaning of Iowa Code sections 455B.381(8), 455B.392, or 455B.388, nor is he a "responsible person" within 567 IAC 133.2, 133.3(4). (Pet. 15, 16).

Petitioner's facial constitutional challenge, as included with other challenges, is not an exception to the exhaustion requirement.

Petitioner must exhaust his adequate administrative remedies for there to be jurisdiction of preliminary, procedural or intermediate agency action. Iowa Code section 17A.19(1). Petitioner has failed to exhaust his administrative remedies and failed to show that he falls within any exception to the exhaustion requirement.

RULING

Respondent's motion to dismiss is hereby granted. The petition for judicial review is dismissed for lack of jurisdiction. Costs are taxed to the petitioner.

JUDGE GENE L. NEEDLES
FIFTH JUDICIAL DISTRICT OF IOWA

COPIES MAILED TO:

Carlton G. Salmons
900 Des Moines Building
Des Moines, Iowa 50309

David R. Sheridan
Assistant Attorney General
Hoover State Office Building
Des Moines, Iowa 50319

AUSTIN, GAUDINEER, AUSTIN, SALMONS & SWANSON

SUITE 900

DES MOINES BUILDING

DES MOINES, IOWA 50309

JAMES R. AUSTIN (1908-1981)
LEE H. GAUDINEER, JR.
JAMES R. AUSTIN, JR.
CARLTON G. SALMONS
JON K. SWANSON
H. LORAINE WALLACE
PATRICK J. HOPKINS

TELEPHONE
(515) 243-5750
FAX: (515) 243-2908

October 22, 1991

Mark Landa
Attorney
Legal Services Bureau
Iowa Department of
Natural Resources
Wallace State Office Building
Des Moines, IA 50309

Re: Property at 5512 SE 14th Street, Des Moines, IA

Dear Mr. Landa:

U.S. Fire Insurance Company, CNA Insurance Companies and the Home Insurance Company all state that they have not received a claim against COTA Industries in the above-captioned matter. These are the CGL carriers for COTA Industries from 1974 until 1986. The A.Y. McDonald Company case holds that the State of Iowa is a proper claimant to claim damages in the form of remedial measures for this property. Why don't you make a formal claim against COTA Industries with these carriers to eliminate this "technical defense"?

Sincerely,

Lee H. Gaudineer

wjh

Crum & Forster Corporation

A XEROX Financial Services Company

40 Technology Drive
Warren, New Jersey 07059-7007
(908) 412-3000

October 24, 1991

Mark Landa, Esq.
Legal Services Bureau
IOWA DEPARTMENT OF NATURAL RESOURCES
900 E. Grand Avenue
Wallace State Office Building
Des Moines, Iowa 50309

Re: Policyholder: Cota Industries

Claim Type: Hazardous Waste

Site: 5512 S.E. 14th Street
Des Moines, IA

Claimant: Iowa Department of Natural Resources

Dear Mr. Landa:

This letter will serve as confirmation of your June 19, 1991 telephone conversation with Ms. Virginia Datre of this office. This file has been subsequently transferred to the undersigned and all future correspondence should be directed to my attention.

As Ms. Datre indicated to you, we have received a letter from an attorney who represents a majority shareholder in Cota Industries, but does not represent Cota Industries itself. He advised us of the above-captioned claim, but he had little to offer in the way of information. He suggested that we contact you.

Please provide this office with copies of any information you might have in your file which would identify the role of Cota Industries at the site. Are the allegations of contamination confined to on-site contamination?

Is there any evidence of off-site contamination? Who are the subsequent purchasers? Has the EPA become involved?

I would appreciate anything you may be able to furnish which would help us investigate this claim.

I thank you for your cooperation. If you would care to discuss this matter, I may be reached at (908) 412-5833.

Very truly yours,

Allison K. Harmony

Allison K. Harmony
Claim Specialist
Environmental Claims Unit

AKH/ld 1.18

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

November 7, 1991

Ms. Allison K. Harmony
Crum & Forster Corporation
Claim Specialist/Environmental Claims
40 Technology Drive
Warren, New Jersey 07059-7007

Re: Cota Industries
5512 S.E. 14th Street
Des Moines, Iowa

Dear Ms. Harmony:

This Department, in conjunction with the United States Environmental Protection Agency, has completed an investigation into the disposal of certain wastes on the property owned by Cota Industries in Des Moines. This investigation included the collection of soil, waste and groundwater samples which have been analyzed. The results of the analyses are now being reviewed. All information gathered during this and all other investigations which pertain to this site will be mailed to you as soon as possible. This may be as early as next week.

You ask a number of questions in your letter which is dated October 24, 1991. The information which will be provided in the near future will answer those questions.

If you need to talk to me about this matter before I send to you a copy of the Department's file, please call me at 515/281-6243.

Sincerely,

Mark Landa
Attorney
Legal Services Bureau

cc: Dave Sheridan, Iowa Attorney General's Office
Ron Kozel, DNR Emergency Response
Lee H. Gaudineer, Attorney

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

STATE OF IOWA, ex rel., IOWA DEPARTMENT OF NATURAL RESOURCES, 99AG23542 Plaintiff, vs. Daniel L. Cota, David R. Sheets, M. Dana Kelley, Cota Industries, Inc., and Cota Exterior Systems, Inc. Defendants.	LAW No. CL 106 59583 PETITION AT LAW

COMES NOW Plaintiff State of Iowa, ex rel., Iowa Department of Natural Resources (hereafter DNR) and for its claim against defendants states:

The Parties

1. The State of Iowa is a sovereign state of the United States of America and brings this action on behalf of the DNR, a duly constituted agency of the State of Iowa pursuant to Iowa Code § 455A.2.

2. Defendant Cota Industries, Inc., an Iowa corporation, was administratively dissolved by the Iowa Secretary of State on or about September 6, 1991. Iowa Code § 490.1421(3) provides in part that a corporation which is administratively dissolved continues its corporate existence necessary to wind up and liquidate its business and affairs, including payment of claims under Iowa Code §§ 490.1406 and 490.1407.

3. Defendant Daniel L. Cota is a resident of Arizona.

4. Defendant M. Dana Kelley is a resident of Texas, and is a director of Cota Industries, Inc.

5. Defendant David R. Sheets is a resident of Texas, and is an officer of Cota Industries, Inc.

6. Defendant Cota Exterior Systems, Inc., is a Texas Corporation.

The Site

7. This action involves real property located in Polk County, Iowa described as:

> The South 10 Acres of the Southeast Quarter of the Northeast Quarter (except the West 300 feet thereof and less .4 Acres for roads); and North One-half of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter all in Section 27, T78N, R24W of the 5th P.M. now included in and forming a part of the City of Des Moines, Iowa

and locally known as 5512 S.E. 14th Street, Des Moines, Polk County, Iowa (hereafter "the site").

COUNT I

Enforcement of Administrative Order

8. This count is brought against Defendants Daniel L. Cota and Cota Industries, Inc. to enforce an emergency order issued by the Director of the Iowa Department of Natural Resources which requires the defendants to take specific actions with respect to the site.

9. Iowa Code § 455B.388(1) authorizes the director of the DNR to issue administrative orders necessary to terminate an emergency with respect to a hazardous condition.

10. The director of the DNR issued Emergency Order No. 91-HC-03 to the defendants on March 28, 1991, pursuant to Iowa Code § 455B.388(1). A copy of Emergency Order No. 91-HC-03 is attached hereto as "Exhibit A".

11. Emergency Order No. 91-HC-03 determined that hazardous substances have been disposed of on the site and that a hazardous condition exists.

12. Emergency Order No. 91-HC-03 required, inter alia, that the defendants conduct a site assessment to determine the types, amounts and sources of contaminants present on the site, and report the results of the site assessment and recommended remedial action to the DNR by May 30, 1991.

13. Defendants Daniel L. Cota and Cota Industries Inc. received Emergency Order No. 91-HC-03, as documented by the return receipt cards attached hereto as "Exhibits B and C". Defendant Cota Industries, Inc. did not appeal Emergency Order No. 91-HC-03. Defendant Daniel L. Cota sought judicial review of Emergency Order No. 91-HC-03 in Iowa District Court for Polk County. That action was finally resolved adversely to Defendant Daniel L. Cota in Cota v. Envtl. Protection Comm'n., 490 N.W.2d

549 (Iowa 1992). Therefore, Emergency Order No. 91-HC-03 is binding and conclusive against Daniel L. Cota and Cota Industries, Inc.

14. Defendants have violated Emergency Order No. 91-HC-03 by failing to conduct a site assessment and failing to submit the required reports.

15. Iowa Code § 455B.388(2) authorizes injunctive relief to enforce the requirements of an emergency order issued pursuant to § 455B.388(1). Iowa Code § 455B.391 authorizes injunctive relief to obtain compliance with the provisions of part 4 of division IV of Chapter 455B.

WHEREFORE, plaintiff requests that the Court issue a permanent writ of injunction enjoining and requiring the Defendants Daniel L. Cota and Cota Industries, Inc. to immediately comply with the requirements of Emergency Order No. 91-HC-03.

Plaintiff requests such other and further relief the Court may deem just and proper and that the Court tax the costs of this action to the defendants.

COUNT II

Action to Recover Costs

1. Plaintiff hereby repleads paragraphs one (1) through seven (7) and paragraphs nine (9) through fourteen (14) of Count I by this reference as if each paragraph was fully set forth herein.

14. This count is brought against all defendants to recover for past costs, damages, and expenses plaintiff has incurred with respect to the site.

15. As determined by Emergency Order No. 91-HC-03, there has been a release, as defined by Iowa Code § 455B.381(8), of hazardous substances, as defined by Iowa Code § 455B.381(5), which has resulted in a hazardous condition, as defined by Iowa Code § 455B.381(4), at the site.

16. Defendants are persons having control over a hazardous substance as defined by Iowa Code § 455B.381(7).

17. Plaintiff has incurred costs, which exceed the jurisdictional amount required to bring an action in this Court, due to the defendants' failure to comply with the requirements of Emergency Order No. 91-HC-03 and failure to properly and promptly clean up the site.

18. Pursuant to Iowa Code § 455B.392 defendants are strictly liable to the State of Iowa for all of the following:

a. The reasonable cleanup costs incurred by the state as a result of the failure of the person to clean up a hazardous substance involved in a hazardous condition caused by that person.

b. The reasonable costs incurred by the state to evacuate people from the area threatened by a hazardous condition caused by that person.

c. The reasonable damages to the state for the injury to, destruction of, or loss of natural resources resulting from a hazardous

condition caused by that person including the costs of assessing the injury, destruction, or loss.

d. The excessive and extraordinary cost, excluding salaries, incurred by the DNR in responding at and to the scene of a hazardous condition caused by that person.

19. Defendants' failure to clean up the site and comply with Emergency Order No. 91-HC-03 was willful. Therefore, pursuant to Iowa Code § 455B.392, in addition to recovering its actual costs, the plaintiff is entitled to punitive damages not to exceed three times the actual cleanup costs.

WHEREFORE, plaintiff requests judgment against the defendants jointly and severally in the amount of all costs and expenses incurred for the removal, remediation, response to contamination, and cleanup of the site and costs of responding to the hazardous condition, and for damages for the injury to, destruction of, or loss of natural resources, including the costs of assessing the injury, destruction, or loss. In addition to the aforesaid actual costs, plaintiff requests judgment for punitive damages of triple the cleanup costs incurred by the state.

Plaintiff requests interest at the maximum lawful rate and such other and further relief the Court may deem just and proper and that the Court tax the costs of this action to the defendants.

COUNT III

Declaratory Judgment for Future Costs

1. Plaintiff hereby repleads paragraphs one (1) through thirteen (13) and fifteen (15) through nineteen (19) of Count II by this reference as if each paragraph was fully set forth herein.

19. This count is brought against all defendants for all future costs, damages, and expenses which may be incurred with respect to the site.

20. Iowa R. Civ. P. 261 authorizes this Court to enter declaratory relief.

21. Pursuant to Iowa Code § 455B.387 the director of the DNR may remove or provide for the removal and disposal of the hazardous substance at any time when a hazardous condition exists.

22. Unless the defendants comply with the requirements of Emergency Order No. 91-HC-03 and thereafter proceed to properly and promptly clean up the hazardous condition at the site, the plaintiff may incur future costs to remediate the hazardous condition at the site.

23. An actual controversy exists between these parties.

WHEREFORE, plaintiff requests judgment in its favor adjudging and declaring defendants strictly, jointly and severally liable to the plaintiff for all costs and expenses and damages incurred and which may be incurred by the State of Iowa

in the future for the removal, remediation, response to contamination, and cleanup of the site and for the excessive and extraordinary costs of responding to the hazardous condition, and for damages for injury to, destruction of, or loss of natural resources at the site, including the costs of assessing the injury, destruction, or loss. Plaintiff further requests declaratory judgment that if defendants fail to develop and implement, under plaintiff's oversight and subject to plaintiff's approval, a remedial program to abate and clean up the hazardous condition at the site that such failure is willful and defendants are liable for punitive damages of triple the cleanup costs incurred by the state in addition to the above actual costs.

Plaintiff requests that the Court retain jurisdiction to award such supplementary relief as is appropriate, including the determination of the amount of any future costs, expenses, and damages and punitive damages incurred by the plaintiff.

Plaintiff requests interest at the maximum lawful rate and such other and further relief the Court may deem just and proper and that the Court tax the costs of this action to the defendants.

BONNIE J. CAMPBELL
Attorney General of Iowa

DAVID R. SHERIDAN
Assistant Attorney General

Michael Paul Valde

MICHAEL PAUL VALDE PK1000125
Assistant Attorney General
Environmental Law Division
1223 East Court Avenue
Des Moines, Iowa 50319
Tel: (515) 281-5351
FAX: (515) 242-6072
ATTORNEYS FOR PLAINTIFF

IOWA DEPARTMENT OF NATURAL RESOURCES

EMERGENCY ORDER

IN THE MATTER OF: COTA INDUSTRIES, INC. Des Moines, Iowa	EMERGENCY ORDER NO. 91-HC-03

TO: Cota Industries, Inc.
c/o Clifford S. Swartz, Reg. Agent
550 39th Street
Des Moines, IA 50309

Daniel L. Cota
916 S. Saranac Ave.
Mesa, AZ 85208

Cota Exterior System, Inc.
P. O. Box 21255
Houston, TX 77226

David R. Sheets
5940 North Belt
Humble, TX 77376

M. Dana Kelley
13846 Chrisman
Houston, TX 77039

I. SUMMARY

This order requires you to immediately secure the hazardous condition site and to conduct an adequate site assessment.

II. JURISDICTION

This order is issued pursuant to Iowa Code section 455B.388 which authorizes the Director to issue an emergency order to terminate an emergency affecting or likely to affect the public health.

III. STATEMENT OF FACTS

1. Cota Industries, Inc. owns property described as:

> The South 10 Acres of the Southeast Quarter of the Northeast Quarter (except the West 300 feet thereof and less .4 Acres for roads); and the North One-half of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter all in Section 27, T78N, R24W of the 5th P.M. now included in and forming a part of the City of Des Moines, Iowa.

and locally known as 5512 SE 14th Street, Des Moines, Iowa.

2. The company operated a manufacturing facility producing paints, resins, glazes, sealants, and other coatings, including

asbestos bonding/acoustic coatings. Various chemicals or compounds, including formaldehyde, methyl ethyl ketone, soda ash, toluol, other solvents, polymers, muriatic acid, powdered lead, propylene glycol, zinc, cadmium, mercury, and asbestos were used in the manufacturing processes. Daniel L. Cota was the founder and principal shareholder of said corporation from the mid-1950s through 1984, and David R. Sheets and M. Dana Kelley, d/b/a Exterior Systems or Cota Exterior System, Inc., were officers of said corporation from 1986 to 1990, and were reportedly purchasing the corporation. The corporation is currently delinquent in filing an annual report but is still on file with the Iowa Secretary of State and has not been deleted. Mr. Cota is regaining ownership of the property in question.

3. The Department has evidence that wastewater containing the above constituents was routinely disposed on the ground of said property, and that barrels or other containers containing such materials have been buried on the property. Investigation within the last two weeks indicates that a building on the property was unsecured and contained such chemicals, and that the public, including children were exposed to the chemicals. Metal drums are scattered about the site. A multicolored stain, solidified paint, that killed vegetation was coming from the building, and the property is bordered by a marshy area that is near an elementary school. High levels of mercury have reportedly been found in the soil. Groundwater in the vicinity is reportedly at 9-15'.

4. The Department and local officials have attempted to have the responsible parties secure the site from the public and assess the level of contamination at and around the site, to no avail.

5. The above-cited substances are "hazardous substances" as defined by Iowa Code section 455B.381(1), and this situation creates an immediate or potential danger to the public health and safety and to the environment.

IV. CONCLUSIONS OF LAW

Iowa Code chapter 455B, Division IV, Part 4, defines "hazardous condition" as any situation involving the actual or imminent release of a hazardous substance to the environment which creates an immediate or potential threat to the public health or safety or to the enviroment. Iowa Code section 455B.388(1) authorizes an emergency order to abate an emergency likely to affect the public health.

V. ORDER

THEREFORE, you are hereby ordered to take immediate action to abate this emergency. Such action shall include:

1. Immediate construction and maintenance of a secure fence around the entire property boundary to prevent unauthorized entry onto the site.

2. By May 30, 1991, through a registered professional engineer, an expert in the field of hydrology, or other qualified person, conduct a site assessement to determine the types, amounts, and sources of contaminants present on the site, the hydrogeological characteristics of the site, and the vertical and horizontal extent of contamination, and report the results of the site assessment and recommended remedial action to the Department. By April 15, 1991, notify the Department of the consultant retained to perform the assessment, and by April 30, 1991, submit a site assessment plan of study to the Department for approval.

3. This Order will be amended to direct necessary remedial action determined as a result of the site assessment or any other information obtained by the Department.

4. These directives are in addition to any other directives by local officials regarding security and cleanup of the building.

VI. APPEAL RIGHTS

This Order is binding and effective immediately and until the Order is modified or vacated by the Environmental Protection Commission or by a District Court. You may request a stay of the Order by contacting the Director by telephone or by delivery of a written request for a stay to the Department. Upon request for a stay, a hearing will be scheduled within five days.

IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER
ISSUED TO: Cota Industries, Inc.

Any questions regarding this order should be directed to:

Mark Landa
Iowa Department of Natural Resources
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319-0034
515/281-6243

LARRY J. WILSON, DIRECTOR
IOWA DEPARTMENT OF NATURAL RESOURCES

Dated this 28 day of March, 1990

90184DNR0022

EXHIBIT A PAGE 4 OF 4

)04 502652029 1990 04/02/91
Y SENDER OF NEW ADDRESS

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AZ 85208-2636

IOWA DEP

ISSUED

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LARRY J. WILSON, D.
IOWA DEPARTMENT OF

90184DNR0022

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de you the name of the person delivered to a
ces are available. Consult postmaster for fe

address. 2. ☐ Restricted Delivery
(Extra charge)

Daniel L. Cota
504 Oaklane Road
West Des Moines, IA 50265

4. Article Number
P 558 717

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

8. Addressee's Address *(ONLY if requested and fee paid)*

5. Signature — Agent
X

7. Date of Delivery
4-6-91

PS Form 3811, Apr. 1989 * U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEI

SENDER: Complete
3 and 4.
Put your address in the "RETURN TO" Space on the reverse
from being returned to you. The return receipt fee will provide you the name of
the date of delivery. For additional fees the following services are available. Consult postmaster
and check box(es) for additional service(s) requested.
1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery
(Extra charge) *(Extra charge)*

3.
Daniel L. Cota
916 S. Saranac Ave.
Mesa, AZ 85208

4. Article Number
P 558 714

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

8. Addressee's Address *(ONLY if requested and fee paid)*

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery
4-1-91

PS Form 3811, Apr. 1989 * U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RE

EXHIBIT B PAGE 1 OF 1

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery *(Extra charge)*

Cota Industries, Inc.
c/o Clifford S. Swartz,
Registered Agent
550 39th St.
Des Moines, IA 50309

4. Article Number
P 558 711

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery APR 1 1991

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form 3811, Apr. 1989 U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEI

EXHIBIT C PAGE 1 OF 1

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

STATE OF IOWA, ex rel., IOWA DEPARTMENT OF NATURAL RESOURCES, 99AG23542, Plaintiff, vs. DANIEL L. COTA, DAVID R. SHEETS, M. DANA KELLEY, COTA INDUSTRIES, INC., and COTA EXTERIOR SYSTEMS, INC., Defendants.	)	LAW NO. CL 10659583 DEFENDANT COTA EXTERIOR SYSTEMS, INC. FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

Defendant, pursuant to Iowa Rule of Civil Procedure 129(a), hereby requests that plaintiff produce for inspection and copying the documents designated herein at the office of counsel for defendant, 1600 Hub Tower, 699 Walnut Street, Des Moines, Iowa 50309-3986, at Noon on July 19, 1993, or at such other time and place as agreed upon by counsel. You are reminded of your continuing duty to supplement your document production in accordance with Rule of Civil Procedure 122(d).

A. Instructions:

1. In producing the documents described herein, indicate the paragraph(s) to which they are responsive.

2. Unless otherwise specified, you are to produce all requested documents which are in your possession, custody or control. Without limitation of the term "control" as used in the preceding sentence, a document is deemed to be in your control if you have the right to secure the document or a copy thereof from

another person or public or private entity having actualpossession thereof. Such documents include any documents that you do now or did at any time during the period covered by these requests maintain or keep in personal files, private papers, homes, personal automobiles or anywhere else on or off your premises.

3. In lieu of producing original documents which are in your possession, custody or control, copies may be produced, provided that the documents identified as copies are accurate and complete copies of original documents and provided that the originals are preserved and made accessible upon request during this or any subsequent proceeding.

4. If you have in your possession, custody or control a copy of a requested document but not an original, please so state and produce the copy.

5. If any document is responsive to a request for production and was, but is no longer, in your possession or custody or subject to your control, state what disposition was made of it, by whom, and the date or dates or approximate date or dates on which such disposition was made, and why.

6. If any request asks for documents that are no longer in existence, identify each such request and, with respect thereto:

(a) identify all such documents;

(b) state the time period during which such documents were maintained;

(c) state the circumstances under which such documents ceased to exist;

(d) state the date when such documents ceased to exist;

(e) identify all persons having knowledge of the circumstances under which such documents ceased to exist; and

(f) identify all persons who have knowledge or had knowledge of the documents and the contents thereof.

7. If any documents called for in response to any of these requests were furnished in response to another of these requests, or in response to previous requests of any party to this action, they need not be furnished again. Indicate, however, what the documents are and pursuant to which of those requests they were produced.

8. For each document withheld under a claim of privilege, state:

(a) the name and title of the author(s);

(b) the name and title of the person(s) to whom a copy of the document was sent or to whom the document or a copy, or any part thereof, was shown;

(c) its date;

(d) the name and title of the person(s) to whom the document was addressed;

(e) the number of pages;

(f) a brief description of the subject matter;

(g) the nature of the privilege claimed;

(h) the facts which support such claim of privilege; and

(i) the paragraph(s) to which the document is otherwise responsive.

B. Definitions:

1. "Document" means the original and any nonidentical copy (whether different from the original by reason of notations or otherwise) of any written, printed, typed, recorded, graphic or photographic matter, sound reproduction, tape, record or other

device, however produced or reproduced. "Document" includes but is not limited to agreements, memoranda, records, letters, correspondence, drafts, communications, diary entries, reports, manuals, brochures, schedules, telephone logs, telephone toll records, telegrams, teletypes, computer printouts and any data compilations. "Document" also means identical copies of unavailable original documents and of unavailable nonidentical copies.

2. "Person" includes a natural person, partnership, corporation, pension fund, trust, unincorporated association, group, governmental agency or agent, and any other organization or entity.

3. "Identify", when used in connection with a document, means to state its type (e.g., letter, memorandum, drawing, etc.), subject matter and date, by whom written or prepared, by whom signed, to whom sent, its present location (name and address of place), and the present custodian of the original and all copies thereof. If any such document was, but no longer is, in your possession or custody or subject to your control, state what disposition was made of it. In lieu of providing a list or otherwise identifying documents in your possession as requested, you may attach copies of the documents along with your answers to these interrogatories.

4. "Identify", when used in connection with an individual, means to state the person's full name, current address and telephone number, the full name, current address and telephone number of the company, firm, or other organization with which the

person is affiliated or by whom the person is employed, and the person's position, title or job capacity at the date of your response and at the time covered by the interrogatory.

5. "Identify", when used in connection with an entity other than an individual person, means to state whether such entity is a corporation, partnership or other organization, and the name, present and last known address, and principal place of business of such entity.

C. Documents to be produced:

1. All documents in any manner relating to defendant Cota Exterior Systems, Inc. in the possession of plaintiff State of Iowa.

2. All documents in any manner relating to defendant Cota Exterior Systems, Inc. in the possession of Iowa Department of Natural Resources.

3. All documents in any manner relating to defendant Cota Exterior Systems, Inc. in the possession of the Environmental Protection Commission.

4. All documents relied upon by plaintiff, or the Iowa Department of Natural Resources, or the Environmental Protection Commission, in naming Cota Exterior Systems, Inc. a defendant in a lawsuit filed in Polk County District Court on or about April 14, 1993, under the Civil Law No. CL 10659583.

5. All documents relied upon by the State of Iowa, or the Iowa Department of Natural Resources, or the Environmental

Protection Commission, in naming Cota Exterior Systems, Inc. in an emergency order dated March 28, 1990, and numbered 91-HC-03.

6. All documents in any manner evidencing any relationship between Cota Exterior Systems, Inc. and a property described as:

> The south ten acres of the southeast ¼ of the northeast ¼ (except the west 300 feet thereof and less .4 acres for roads); and the north ½ of the southwest ¼ of the southeast ¼ of the northeast ¼ all in section 27, T78N, R24W of the Fifth Prime Meridian now included in and forming a part of the City of Des Moines, Iowa.

and locally known as 5512 S.E. 14th Street, Des Moines, Iowa.

7. All documents tending to support that Cota Exterior Systems, Inc. has ever in any manner "operated a manufacturing facility producing paints, resins, glazes, sealants, and any other coatings, including asbestos bondings/acoustic coatings, or various chemicals or compounds, including formaldehyde, methyl ethyl ketone, soda ash, tuluol, other solvents, polymers, muriatic acid, powdered lead, propylene glyclo zinc, cadmium, mercury, or asbestos."

8. Any documents in your possession indicating that any party to this lawsuit participated in activity of the type described in the preceding paragraphs between the years 1986 to 1990.

9. All documents relied on in making the statement contained in numbered paragraph III(3) of plaintiff's emergency order number 91-HC-03.

10. All documents tending to support a claim that Cota Exterior Systems, Inc. is a responsible party with regard to the above-described site.

11. All documents tending to support any claim that Cota

Exterior Systems, Inc. is a potentially responsible party with respect to the above-described site.

12. All documents evidencing any attempt by plaintiff or any other governmental official to have Cota Exterior Systems, Inc. "secure the site from the public and assess the level of contamination at and around the site."

13. All documents evidencing any attempt by plaintiff or any other governmental official to have any party or potentially responsible party "secure the site from the public and assess the level of contamination at and around the site."

14. Any document evidencing notice or service of process to Cota Exterior Systems, Inc. with regard to emergency order number 91-HC-03.

15. Any document tending to show notice or service of process to defendant Cota Industries, Inc. with respect to civil action number CL 10659583 now pending in Polk County, iowa.

16. Any document tending to show the founders, shareholders, officers, or directors of defendant corporation Cota Industries, Inc.

17. Any document tending to show the founders, shareholders, officers, or directors of defendant corporation Cota Exterior Systems, Inc.

18. All documents in the care, possession, custody, or control of plaintiff State of Iowa, or the Iowa Department of Natural Resources, or the Environmental Protection Commission, in any manner related to defendant David R. Sheets.

19. All documents in the care, possession, custody, or

control of plaintiff State of Iowa, or the Iowa Department of Natural Resources, or the Environmental Protection Commission, in any manner related to defendant M. Dana Kelley.

20. All documents in the care, possession, custody, or control of plaintiff State of Iowa, or the Iowa Department of Natural Resources, or the Environmental Protection Commission, in any manner related to "Exterior Systems."

21. Any document purportedly constituting "substantial evidence" as contemplated by Iowa Code § 455B.391 of any allegation in plaintiff's petition or emergency order related to this action.

22. Any document you purport evidences that defendant Cota Exterior Systems, Inc. in any manner or form has or has had "control over" any "hazardous substance" in any manner related to this action as contemplated by Iowa Code § 455B.391.

23. Any document you purport evidences that defendant Cota Exterior Systems, Inc. in any manner or form has or has had "control over" any "hazardous substance" in any manner related to this action as contemplated by Iowa Code § 455B.392(1).

24. All documents you purport evidences any "willful" conduct on the part of defendant Cota Exterior Systems, Inc. as contemplated by Iowa Code § 455B.392.

25. All documents in the possession of the State of Iowa, or the Iowa Department of Natural Resources, or the Environmental Protection Commission in any manner related to the above-described property as set forth in Request No. 6.

26. All documents submitted as exhibits in any proceeding

or appeal related to emergency order number 91-HC-03.

27. All documents plaintiff intends to use as exhibits at trial in this matter.

28. All documents previously supplied to any expert or consultant, internal or external, in any manner related to the site set forth in Request No. 6 or to any of the above-named defendants.

29. All documents supplied to any expert or consultant, internal or external, related to the site set forth in Request No. 6 or any of the above-named defendants up to and including the time of trial in this matter.

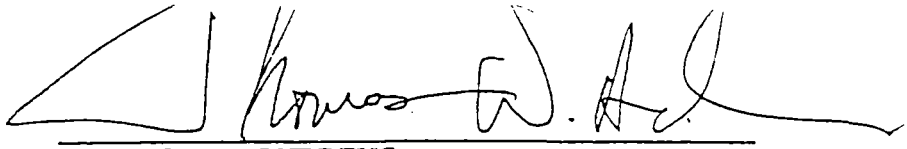
30. All documents relied upon in pleading Count II(1) of plaintiff's petition in regards to this defendant.

31. All documents relied upon in pleading Count II(16) of plaintiff's petition in this action in regards to this defendant.

32. All documents relied upon in pleading Count II(18) of plaintiff's petition with regard to this defendant.

33. All documents relied upon in pleading Count II(19) of plaintiff's petition with respect to this defendant.

34. All documents relied upon in pleading Count III(23) of plaintiff's petition with respect to this defendant.



THOMAS W. ANDREWS
OF
DICKINSON, THROCKMORTON,
PARKER, MANNHEIMER & RAIFE,
A PROFESSIONAL CORPORATION
1600 Hub Tower
699 Walnut Street
Des Moines, Iowa 50309-3986
(515) 244-2600

ATTORNEYS FOR DEFENDANTS

56-61/COTA-RPD.WP

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the document attached to this certificate was mailed to the person(s) listed below at the address(es) indicated, stamped with the appropriate postage for ordinary mail and deposited on the 15 day of June, 1993, in a United States mail receptacle, in Des Moines, Iowa:

Bonnie J. Campbell, Attorney General of Iowa
David R. Sheridan, Assistant Attorney General
Michael Paul Valde, Assistant Attorney General
Environmental Law Division
1223 East Court Avenue
Des Moines, Iowa 50319

ATTORNEYS FOR PLAINTIFF

Daniel L. Cota
Pro Se
916 Saranac Avenue
Mesa, Arizona 85208

Cota Industries, Inc.
c/o Clifford S. Swartz, Registered Agent
550 39th Street
Des Moines, Iowa 50309

M. Dana Kelley
13846 Chrisman
Houston, Texas 77039

David R. Sheets
5940 North Belt
Humble, Texas 77376

Larry J. Wilson, Director
Mark Landa
Iowa Department of Natural Resources
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319-0034

Kristen R Lan

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

STATE OF IOWA, ex rel., IOWA DEPARTMENT OF NATURAL RESOURCES, 99AG23542, Plaintiff, vs. DANIEL L. COTA, DAVID R. SHEETS, M. DANA KELLEY, COTA INDUSTRIES, INC., and COTA EXTERIOR SYSTEMS, INC., Defendants.	)	LAW NO. CL 10659583 ANSWER OF DEFENDANT COTA EXTERIOR SYSTEMS, INC. INCLUDING AFFIRMATIVE DEFENSES, COUNTERCLAIMS, AND NOTICE

COMES NOW Defendant Cota Exterior Systems, Inc. and for its answer in the above action states:

THE PARTIES

1. Admitted.

2. Admitted.

3. Admitted.

4. Admitted.

5. Admitted.

6. Admitted.

THE SITE

7. Admitted.

COUNT I

Enforcement of Administrative Order

8. Defendant Cota Exterior Systems, Inc. admits that this action is brought against defendants Daniel L. Cota and Cota Industries, Inc. to enforce an emergency order issued by the director of the Iowa Department of Natural Resources related to the

defendants Daniel L. Cota and Cota Industries, Inc.; the remainder of this paragraph is denied, furthermore, the term "specific actions" is vague and ambiguous as is the use of the term "defendants" as used in the context of this paragraph.

9. Admitted.

10. Defendant Cota Exterior Systems, Inc. admits that the director of the DNR issued emergency order number 91-HC-03 to defendants Daniel L. Cota and Cota Industries, Inc. on March 28, 1991, pursuant to Iowa Code § 455B.388(1) and that a copy of said emergency order is attached to plaintiff's petition as Exhibit A; the remainder of this numbered paragraph is denied.

11. Admitted.

12. Defendant Cota Exterior Systems, Inc. admits that emergency order number 91-HC-03 required that the defendants Cota Industries, Inc. and Daniel L. Cota conduct a site assessment to determine the types, amounts and sources of contaminants present on the site and report the results of the site assessment and recommended remedial action to the DNR by May 30, 1991; the remainder of this numbered paragraph is denied.

13. Admitted.

14. Admitted.

15. Admitted.

WHEREFORE, Defendant Cota Exterior Systems, Inc. respectfully requests that this court dismiss this cause of action as to defendant Cota Exterior Systems, Inc. and that no judgment issue against said defendant nor any injunctive relief proceed with

regard to said defendant nor any other or further relief issue against said defendant and that the court tax the costs of this action to parties other than defendant Cota Exterior Systems, Inc.

COUNT II

Action to Recover Costs

1 [sic 16]. Defendant Cota Exterior Systems, Inc. hereby repleads its answers to paragraphs one (1) through seven (7) [sic] and paragraphs nine (9) [sic] through fourteen (14) [sic] of Count I by this reference as if each paragraph was fully set forth herein.

14 [sic 17]. Admitted.

15 [sic 18]. Admitted.

16 [sic 19]. Denied.

17 [sic 20]. Defendant Cota Exterior Systems, Inc. admits that plaintiff has incurred costs, which exceed the jurisdictional amount required to bring an action in this court, due to the failure of defendant Cota Industries, Inc. and Daniel L. Cota to comply with the requirements of emergency order number 91-HC-03 and the failure of defendants Cota Industries, Inc. and Daniel L. Cota to properly and promptly clean up the site; the remainder of this numbered paragraph is denied.

18 [sic 21]. Denied.

19 [sic 22]. Denied.

WHEREFORE, Defendant Cota Exterior Systems, Inc. respectfully requests that this action be dismissed as against said defendant, that no costs or expenses in any manner related thereto be assessed

against said defendant, that no damages or assessment costs be levied against said defendant, and that no punitive or exemplary damages be had against said defendant, nor that any interest or other or further relief be had against said defendant and that the costs of this action be taxed to parties other than this defendant.

COUNT III

Declaratory Judgment for Future Costs

1 [sic 23]. Defendant Cota Exterior Systems, Inc. hereby repleads its answers to paragraphs one (1) through thirteen (13) [sic] and fifteen (15) [sic] through nineteen (19) [sic] of Count II by this reference as if each paragraph was fully set forth herein.

19 [sic 24]. Denied.

20 [sic 25]. Denied.

21 [sic 26]. Admitted.

22 [sic 27]. Denied.

23 [sic 28]. Denied.

WHEREFORE, Defendant Cota Exterior Systems, Inc. respectfully requests that this action be dismissed as against said defendant and that said defendant not be adjudged, declared or decreed to be strictly, jointly, or severally liable to the plaintiff for any manner of costs or expenses or damages or interest thereon incurred or which may be incurred by the State of Iowa in the future in any manner related to this action, nor that any declaratory judgment enter against said defendant, nor that any exemplary or punitive damages be assessed against said defendant, nor that this court

retain any jurisdiction with regard to said defendant, and requests that all costs of this matter be assessed against parties other than this defendant.

AFFIRMATIVE DEFENSES

First Affirmative Defense

29. The petition fails to state a claim upon which relief may be granted against defendant Cota Exterior Systems, Inc.

Second Defense

30. The court lacks personal jurisdiction over defendant Cota Exterior Systems, Inc. and service of process on defendant Cota Exterior Systems, Inc. was insufficient.

Third Defense

31. Plaintiff's claims are barred in whole or in part as against defendant Cota Exterior Systems, Inc. by the applicable statute of limitations.

Fourth Defense

32. Plaintiff's claim for damages as against defendant Cota Exterior Systems, Inc. are contrary to public policy and therefore cannot be recovered in this action.

Fifth Defense

33. Plaintiff's claims against defendant Cota Exterior Systems, Inc. are barred in whole or in part by the doctrine of laches.

Sixth Defense

34. Plaintiff's claims are barred in whole or in part by the doctrine of estoppel.

Seventh Defense

35. Assuming, solely for the purposes of pleading this defense, that plaintiffs sustained any legally cognizable damages, these damages are not recoverable from defendant Cota Exterior Systems, Inc. because no portion of such damages were proximately caused by any alleged act or omission of defendant Cota Exterior Systems, Inc.

Eighth Defense

36. Cota Exterior Systems, Inc. is not a proper party-defendant to this action.

Ninth Defense

37. Plaintiff's action against defendant Cota Exterior Systems, Inc. is beyond the scope of said agency.

Tenth Defense

38. Plaintiff's cause of action against defendant Cota Exterior Systems, Inc. is barred by the prior election of remedies.

Eleventh Defense

39. Plaintiff's cause of action against defendant Cota Exterior Systems, Inc. is inappropriate as any damages claimed are the sole proximate cause of parties other than this defendant.

Twelfth Defense

40. Plaintiff has failed to follow, comply with, or exhaust its administrative remedies as to this defendant.

Thirteenth Defense

41. Plaintiff has failed to afford this defendant the opportunity to vacate its "Emergency Order" as allowed by Iowa Code § 455B.388.

Fourteenth Defense

42. To the extent Iowa Code § 455B.388(1) purports to authorize orders against this defendant without notice and hearing, said statute violates the due process clause of the United States and Iowa constitutions and denies to this defendant the equal protection of the laws.

Fifteenth Defense

43. This action and the "Emergency Order" are in excess of plaintiffs' statutory authority as applied to this defendant.

Sixteenth Defense

44. This lawsuit attempts to deny this defendant its right to a contested case proceeding.

Seventeenth Defense

45. This action against this defendant is not "necessary to obtain compliance" as contemplated by Iowa Code §§ 455B.388 and 455B. 391(1).

Eighteenth Defense

46. No "due notice" has been afforded this defendant as required by Iowa Code §§ 455B.388 and 455B.391(1).

Nineteenth Defense

47. This defendant does not have and has never had "control" as contemplated by Iowa Code §§ 455B.388 and 455B.391(2) or 455B.392(1).

Twentieth Defense

48. This defendant asserts the defense afforded under Iowa Code § 455B.392(3)(c) without waiving any other defense or making any admissions.

Twenty-first Defense

49. Pursuant to Iowa Code Chapters 455B and 17A, this court lacks jurisdiction over this matter as it relates to this defendant.

COUNTERCLAIMS

First

50. Defendant repleads its answers and affirmative defenses as set forth above in paragraphs 1 through 49 by this reference as if each paragraph was fully set forth herein.

51. Defendant is entitled to dismissal of this action for plaintiff's failure to exhaust its administrative remedies as to this defendant.

WHEREFORE, defendant requests this action be dismissed as to this plaintiff with no costs assessed to this defendant.

Second

52. Paragraphs 1 through 49 are repled by this reference as if each paragraph was fully set forth herein.

53. Defendant is entitled to have this action remanded to the Department of Natural Resources for administrative challenge.

WHEREFORE, defendant requests this action be remanded to the Department of Natural Resources for administrative challenge.

Third

54. Paragraphs 1 through 49 are repled by this reference as though each paragraph was fully set forth herein.

55. Defendant is entitled to a stay and dissolution of (a) these proceedings and (b) the "Emergency Order."

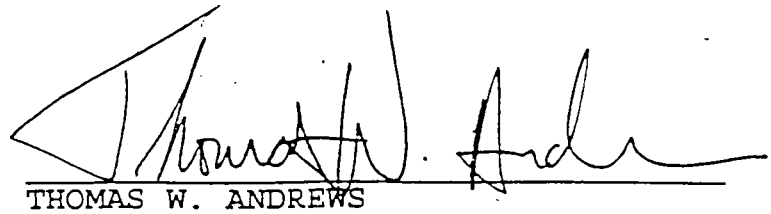
WHEREFORE, defendant requests that these proceedings and the "Emergency Order" be stayed and dissolved as to this defendant.

RESERVATION OF COUNTERCLAIM

There is no legal basis or probable cause for filing this proceeding in this manner against this defendant and defendant expressly reserves its right to amend to include counterclaims or file a separate legal action for malicious prosecution or abuse of process as events may warrant.

NOTICE

Without waiving any defense or making any admission, this Answer shall serve as "prompt and good faith notice" that this defendant "does not have the resources or managerial capability to begin or continue cleanup" of subject site.



THOMAS W. ANDREWS
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FAX (515) 246-4550

ATTORNEYS FOR DEFENDANTS

56-61/COTA-ANS.WP

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the document attached to this certificate was mailed to the person(s) listed below at the address(es) indicated, stamped with the appropriate postage for ordinary mail and deposited on the 15 day of June, 1993, in a United States mail receptacle, in Des Moines, Iowa:

Bonnie J. Campbell, Attorney General of Iowa
David R. Sheridan, Assistant Attorney General
Michael Paul Valde, Assistant Attorney General
Environmental Law Division
1223 East Court Avenue
Des Moines, Iowa 50319

ATTORNEYS FOR PLAINTIFF

Daniel L. Cota
Pro Se
916 Saranac Avenue
Mesa, Arizona 85208

Cota Industries, Inc.
c/o Clifford S. Swartz, Registered Agent
550 39th Street
Des Moines, Iowa 50309

M. Dana Kelley
13846 Chrisman
Houston, Texas 77039

David R. Sheets
5940 North Belt
Humble, Texas 77376

Larry J. Wilson, Director
Mark Landa
Iowa Department of Natural Resources
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319-0034

Kristen R Cox

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

STATE OF IOWA, ex rel., IOWA DEPARTMENT OF NATURAL RESOURCES, 99AG23542 Plaintiff, vs. Daniel L. Cota, David R. Sheets, M. Dana Kelley, Cota Industries, Inc., and Cota Exterior Systems, Inc. Defendants.	LAW NO. CL 106 59583 AFFIDAVIT OF RONALD M. KOZEL

I, Ronald M. Kozel, being first duly sworn on oath depose and state:

1. I have personal knowledge of the facts stated herein and I am competent to testify to them.

2. I am employed as an environmental specialist in the emergency response unit of the Iowa Department of Natural Resources. I have worked on and am familiar with the hazardous condition at the site which is the subject of this lawsuit.

3. The attached copy of Emergency Order 91-HC-03 is a true and correct copy of the administrative order issued in this matter, and I am familiar with it.

4. Since the issuance of the order of Emergency Order 91-HC-03 there has been no cleanup response by any responsible party at the site which is the subject of this lawsuit, and no responsible party has conducted an assessment of the site as required by Paragraph V. 2.

5. Defendants Daniel L. Cota, Cota Industries, Inc., and M. Dana Kelley have failed to comply with every material requirement of Emergency Order 91-HC-03.

6. The State of Iowa has incurred costs totalling $8,440.46 as of this date, to respond to the hazardous condition at the site. Copies of the receipts documenting said costs are attached to this affidavit, and are true and correct copies of costs incurred and paid by the State of Iowa for response at the hazardous condition site.

Further affiant sayeth not.

Ronald M. Kozel
RONALD M. KOZEL

SUBSCRIBED and SWORN to before me on this 31st day of October, 1994.

A M Pagan
NOTARY PUBLIC in and for the
State of Iowa

My commission expires April 21, 1997 AMP

FILED

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

STATE OF IOWA, ex rel., IOWA DEPARTMENT OF NATURAL RESOURCES, 99AG23542 Plaintiff, vs. Daniel L. Cota, David R. Sheets, M. Dana Kelley, Cota Industries, Inc., and Cota Exterior Systems, Inc. Defendants.	LAW NO. CL[illegible]59583 **VOLUNTARY DISMISSALS WITHOUT PREJUDICE**

COME NOW Plaintiff, State of Iowa, ex rel., Iowa Department of Natural Resources, and Defendant, Cota Exterior Systems, Inc., by their respective attorneys of record, and pursuant to Rule 215, Iowa Rules of Civil Procedure, hereby stipulate that all causes of action brought by Plaintiff against Cota Exterior Systems, Inc., and all Counterclaims brought by Cota Exterior Systems, Inc., against Plaintiff, State of Iowa, ex rel., Iowa Department of Natural Resources, are hereby voluntarily dismissed without prejudice.

Plaintiff, State of Iowa, ex rel., Iowa Department of Natural Resources, further states that pursuant to Rule 215, Iowa Rules of Civil Procedure, it hereby voluntarily dismisses without prejudice its causes of action brought against Defendant David R. Sheets in this action.

Plaintiff, State of Iowa, ex rel., Iowa Department of Natural Resources, further states that all claims and causes of action by Plaintiff against all other defendants in this action are expressly preserved, and are not dismissed.

Respectfully submitted,

THOMAS J. MILLER
Attorney General of Iowa

DAVID R. SHERIDAN
Assistant Attorney General

Helen C. Adams

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OF
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ATTORNEY FOR DEFENDANT
COTA EXTERIOR SYSTEMS, INC.

Michael Paul Valde

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Copy mailed to:

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Pro se
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Mesa, Arizona 85208

M. Dana Kelley
1622 Lakeshore Drive
Humble, Texas 77339-4030

David R. Sheets
7624 Belmondo
Las Vegas, Nevada 89128-7813

Cota Industries, Inc.
13846 Chrisman
Houston, TX 77039

PROOF OF SERVICE
the undersigned hereby certifies that a true copy of the foregoing was
____ personally delivered
_X_ regular mail
____ certified mail
____ sent via telefax
to each party of record at their last known address on
March 9 1995
Michael Paul Valde

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

STATE OF IOWA, ex rel., IOWA DEPARTMENT OF NATURAL RESOURCES, 99AG23542 Plaintiff, vs. Daniel L. Cota, David R. Sheets, M. Dana Kelley, Cota Industries, Inc., and Cota Exterior Systems, Inc. Defendants.	LAW NO. CL 106 59585 JUDGMENT ON DEFAULT AGAINST DEFENDANTS M. DANA KELLEY, AND COTA INDUSTRIES INC.; SUMMARY JUDGMENT AGAINST DEFENDANT DANIEL L. COTA.

FILED
95 JAN -9 PM 3:12
CLERK District Court

Plaintiff's pending motions for judgment on default against Defendants M. Dana Kelley, and Cota Industries, Inc., and for summary judgment against Defendant Daniel L. Cota, came on for hearing on January 6, 1995, pursuant to this Court's ORDER filed on December 2, 1994. Defendants Kelley, Cota Industries, Inc., and Daniel L. Cota did not appear, nor anyone for them. The plaintiff was represented by Assistant Attorney General Michael Paul Valde. Although not involved in any of the pending motions, Defendant Cota Exterior Systems, Inc., was represented by its attorney Helen C. Adams. These findings and conclusions are binding and effective as to Defendants Daniel L. Cota, M. Dana Kelley, and Cota Industries, Inc.

The Court FINDS that the Defendants M. Dana Kelley, and Cota Industries, Inc., have been properly served as shown by the proofs on file, and are in default for failure to appear, move or plead. Plaintiff has demanded entry of default and judgment should be

entered by default for the relief demand in the petition against Defendants Kelley and Cota Industries, Inc.

The Court further FINDS that Defendant Daniel L. Cota, has appeared, pro se, and filed his Answer generally claiming that he was unjustly named in the petition. He did not deny the allegations of the Petition. He did not resist, nor did he respond in any way, to the motion for summary judgment filed by the plaintiff.

The Court FINDS that the plaintiff has established the following undisputed facts, there is no dispute of material fact, and that the plaintiff is therefore entitled to summary judgment as requested against Defendant Daniel L. Cota:

1. This action is brought to enforce an administrative order relating to hazardous substances -- Emergency Order 91-HC-03. The order was issued by the Iowa Department of Natural Resources (DNR) on March 28, 1991, and subsequently served on Defendant Daniel L. Cota, and Cota Industries, Inc. The Order was issued pursuant to Iowa Code § 455B.388(1). A copy of Emergency Order 91-HC-03 is attached to the Plaintiff's Petition. The location of the property is described in the petition and the attached Emergency Order 91-HC-03:

> The South 10 Acres of the Southeast Quarter of the Northeast Quarter (except the West 300 feet thereof and less .4 Acres for roads); and North One-half of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter all in Section 27, T78N, R24W of the 5th P.M. now included in and forming a part of the City of Des Moines, Iowa, and locally known as 5512 S.E. 14th Street, Des Moines, Polk County, Iowa.

2. Defendant Daniel L. Cota did not seek an administrative appeal of Emergency Order 91-HC-03. His attempt to seek judicial review of said order without exhausting his administrative remedies was dismissed by the Iowa District Court for Polk County and affirmed by the Iowa Supreme Court. Cota v. Environmental Protection Commission, 490 N.W.2d 549 (Iowa 1992).

3. Defendant Daniel L. Cota has failed to comply with the requirements of Emergency Order No. 91-HC-03 in any material respect.

4. Defendant Daniel L. Cota has failed to resist or to respond in any way to plaintiff's motion for summary judgment against him.

5. Defendant Daniel L. Cota is, in accordance with Emergency Order 91-HC-03, a person having control over a hazardous substance at the site which is the subject of this action.

6. Plaintiff State of Iowa, ex rel. Iowa Department of Natural Resources, has incurred costs and expenditures totalling $8,440.46 in response to the hazardous condition at the subject property. The hazardous condition on the property has not been cleaned up.

CONCLUSIONS OF LAW, AND ORDER JUDGMENT AND DECREE

1. Defendant Daniel L. Cota appeared and filed his Answer pro se. His Answer does not deny the allegations of the Petition and offers no defense to this action. Every fact pleaded and not denied in a subsequent pleading shall be deemed admitted. Iowa R. Civ. P. 102.

2. Defendant Daniel L. Cota failed to respond to plaintiff's motion for summary judgment. A party may not rest upon mere allegations or denials of his pleading in resisting a summary judgment motion. He must set forth specific facts showing that there is a genuine issue for trial. If he does not so respond, summary judgment, if appropriate shall be entered against him. Iowa R. Civ. P. 237(e).

3. Iowa Code §§ 455B.388(2) and 455B.391 authorize this action by the State of Iowa to enforce the terms of Emergency Order 91-HC-03.

4. A final adjudicatory decision of an administrative agency is entitled to res judicata effect as if it were a judgment of the court. The plaintiff is entitled to judgment as a matter of law enforcing the terms of Emergency Order 91-HC-03 ordering and enjoining Defendant Daniel L. Cota to immediately comply with Emergency Order 91-HC-03. State ex rel. Iowa Department of Natural Resources v. Shelley, 512 N.W.2d 579, 580 (Iowa App. 1992).

5. Emergency Order 91-HC-03 is final and binding upon Defendants Daniel L. Cota and Cota Industries, Inc.

6. As found by Emergency Order 91-HC-03, there has been a **release**, as defined by Iowa Code § 455B.381(8), of **hazardous substances**, as defined by Iowa Code § 455B.381(5), which has resulted in a **hazardous condition**, as defined by Iowa Code § 455B.381(4), at the site.

7. Defendants Daniel L. Cota, M. Dana Kelley, and Cota Industries, Inc., are persons having control over a hazardous substance as defined by Iowa Code § 455B.381(7).

8. Pursuant to Iowa Code § 455B.392 said defendants are strictly liable to the State of Iowa for all of the following:

a. The reasonable cleanup costs incurred by the state as a result of the failure of the person to clean up a hazardous substance involved in a hazardous condition caused by that person.

b. The reasonable costs incurred by the state to evacuate people from the area threatened by a hazardous condition caused by that person.

c. The reasonable damages to the state for the injury to, destruction of, or loss of natural resources resulting from a hazardous condition caused by that person including the costs of assessing the injury, destruction, or loss.

d. The excessive and extraordinary cost, excluding salaries, incurred by the DNR in responding at and to the scene of a hazardous condition caused by that person.

9. Defendants Daniel L. Cota, M. Dana Kelley, and Cota Industries, Inc. are strictly, jointly and severally, liable to the State of Iowa, and the plaintiff is entitled to judgment for past response costs incurred by the State of Iowa, and for a Declaratory Judgment for all future response costs which may be incurred by the State in the event Defendants Daniel L. Cota, M. Dana Kelley, and Cota Industries, Inc. fail to complete the cleanup of the site.

10. Said defendants' failure to clean up the site and comply with Emergency Order No. 91-HC-03 was willful. Pursuant to Iowa Code § 455B.392, in addition to recovering its actual costs, the plaintiff is entitled to punitive damages of three times the actual cleanup costs.

WHEREFORE IT IS HEREBY ORDERED, ADJUDGED, AND DECREED that judgment is hereby awarded to the Plaintiff State of Iowa, ex rel. Iowa Department of Natural Resources, against Defendants, Daniel L. Cota, M. Dana Kelley, and Cota Industries, Inc., jointly and severally in the amount of $8,440.46. Plaintiff is awarded punitive damages in the amount of $25,321.38 against each of said defendants.

IT IS FURTHER ORDERED ADJUDGED AND DECREED that Defendants Daniel L. Cota and Cota Industries, Inc., are hereby enjoined and required to immediately comply with the requirements of Emergency Order No. 91-HC-03.

IT IS FURTHER ORDERED ADJUDGED AND DECREED, that plaintiff is awarded DECLARATORY JUDGMENT in its favor adjudging and declaring Defendants Daniel L. Cota, M. Dana Kelley, and Cota Industries, Inc., strictly, jointly and severally liable to the plaintiff for all costs and expenses and damages incurred, or which may be incurred by the State of Iowa in the future for the removal, remediation, response to contamination, and cleanup of the site and for the excessive and extraordinary costs of responding to the hazardous condition, and for damages for injury to, destruction of, or loss of natural resources at the site, including the costs of

assessing the injury, destruction, or loss. Plaintiff is granted DECLARATORY JUDGMENT that if said defendants fail to develop and implement, under plaintiff's oversight and subject to plaintiff's approval, a remedial program to abate and clean up the hazardous condition at the site that such failure is willful and defendants are liable for punitive damages of triple the cleanup costs which are or may be incurred by the state in addition to the above actual costs.

The Court retains jurisdiction of this matter in order to award such additional and supplementary relief as may be appropriate, including the determination of the amount of any future costs, expenses, and damages and punitive damages incurred by the plaintiff, and all issues related to the other defendants.

Plaintiff is awarded judgment for interest at the maximum lawful rate and for the costs of this action.

GEORGE BORGESON, Judge
Fifth Judicial District of Iowa

3-9-95
Date

ATTACHMENT 2

REMOVAL SITE EVALUATION FORM

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

SITE NAME AND LOCATION:

NAME: COTA Drum Site

ADDRESS OR OTHER LOCATION IDENTIFIER: 5512 Southeast 14th Street

CITY: Des Moines	**STATE:** Iowa	**ZIP:** 50320

DIRECTIONS TO SITE: From Interstate 35 proceed east on Army Post Road to 14th Street. Proceed north on 14th Street approximately 0.5 mile. The site is located on the west side of 14th.

MAP ATTACHED: Figure 2-1: Site Location Map.

II. PROGRAM CONTACTS:

REQUESTED BY: Paul Doherty	**DATE OF REQUEST:** 2/09/96

AGENCY/OFFICE: EPA/Site Assessment and Cost Recovery Branch

MAILING ADDRESS: 726 Minnesota Avenue

CITY: Kansas City	**STATE:** Kansas	**ZIP:** 66101
TELEPHONE: (913) 551-7924	**FAX:** (913) 551-7063	

EVALUATOR: Buck Brooks

AGENCY/OFFICE: Ecology & Environment, Inc./Superfund Technical Assessment and Response Team

MAILING ADDRESS: 6405 Metcalf, Cloverleaf Building #3, Suite 404

CITY: Overland Park	**STATE:** Kansas	**ZIP:** 66202
TELEPHONE: (913) 432-9961	**FAX:** (913) 432-0670	

III. REMOVAL SITE EVALUATION CRITERIA [40 CFR 300.410(e)]

IS THERE A RELEASE AS DEFINED BY THE NCP: **YES** X **or NO** __

EXPLAIN: Evidence of a release of contaminants to on-site soils has been verified at three locations as follows: the former drum storage area, the paint spill area, and the drum burial area.

*(A **RELEASE** is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant), but excludes: workplace exposures; engine exhaust emissions; nuclear releases otherwise regulated; and the normal application of fertilizer. For purposes of the NCP, release also means threat of release.)*

IS THE SOURCE A FACILITY OR VESSEL AS DEFINED BY THE NCP: **YES** X **or NO** __

EXPLAIN: Contaminants have been discharged on to the ground surface from facility operations (paint spill area) and released to soils in the former drum storage area and the drum burial area.

*(A **FACILITY** is defined as any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or POTW), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft or any site or area, where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel. A **VESSEL** is defined as any description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel.)*

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

. REMOVAL SITE EVALUATION CRITERIA [40 CFR 300.410(e)](continued):

DOES THE RELEASE INVOLVE A HAZARDOUS SUBSTANCE, OR POLLUTANT OR CONTAMINANT AS DEFINED BY THE NCP: **YES X or NO __**

EXPLAIN: CERCLA hazardous substances were detected in subsurface soils within the drum burial area. Heavy metals compounds were also detected in surface soils in the paint spill area and the former drum storage area.

*(A **HAZARDOUS SUBSTANCE** means any substance, element, compound, mixture, solution, hazardous waste, toxic pollutant, hazardous air pollutant, or imminently hazardous chemical substance or mixture designated pursuant to the CWA, CERCLA, SDWA, CAA or TSCA. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas. The definition of **POLLUTANT or CONTAMINANT** includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disea se, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions or physical deformations, in such organisms or their offspring. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas.)*

IS THE RELEASE SUBJECT TO THE LIMITATIONS ON RESPONSE: **YES __ or NO X**

EXPLAIN: The release is not subject to the limitations on response as defined in the provisions of the NCP.

*(The **LIMITATIONS ON RESPONSE** provisions of the NCP (40 CFR 300.400(B) states that removals shall not be undertaken in response to a release: of a naturally occurring substance in its unaltered or natural form; from products that are a part of the structure of, and result in exposure within, residential buildings or business or community structures; or into public or private drinking water supplies due to deterioration of the system through ordinary use.)*

DOES THE QUANTITY OR CONCENTRATION WARRANT RESPONSE: **YES __ or NO X**

EXPLAIN: Analytical results of all soil sampling conducted on site indicated that no concentrations of VOCs, heavy metals, or semi-volatile organics exceeded the Superfund Chemical Data Matrix (SCDM) benchmark soil concentrations.

HAS A PRP BEEN IDENTIFIED: **YES X or NO __**

EXPLAIN: The state of Iowa pursued an enforcement action against the PRP (Daniel Cota). The state won a decision in the Iowa Supreme Court, however, the PRP left the state, so little or no cost recovery ever occurred.

IV. CONDITIONS TO WARRANT REMOVAL [40 CFR 300.415(b)(2)]:

ACTUAL OR POTENTIAL EXPOSURE TO HAZARDOUS SUBSTANCES, OR POLLUTANTS, OR CONTAMINANTS: **YES X or NO**

EXPLAIN: The site is fenced, however, it can be accessed because the perimeter fence has been breached. Low concentrations of CERCLA hazardous substances have been verified in surface soils in the former drum storage area. The majority of the paint waste (containing heavy metals) has been removed from the site and disposed of. The drummed waste within the facility is secured and is inaccessible to the public. The potential for exposure to hazardous substances, pollutants, or contaminants at the site is believed to be minimal.

ACTUAL OR POTENTIAL CONTAMINATION OF DRINKING WATER SUPPLIES: **YES __ or NO X**

EXPLAIN: The potential for contamination of drinking water supplies is believed to be minimal. The majority of the residents in the area are supplied by municipal drinking water. No private well sampling has been conducted at the site. A clay layer underlying the site at a depth of 15 feet was encountered during site assessment activities. It is believed that this clay layer would impede any contaminant migration to the underlying aquifer.

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

IV. CONDITIONS TO WARRANT REMOVAL [40 CFR 300.415(b)(2)] (continued):

HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN DRUMS, BARRELS, OR BULK STORAGE CONTAINERS: YES X or NO __

EXPLAIN: CERCLA hazardous substances were detected in drummed liquid waste and powdered pigments in the facility (see the supplemental inventory sheet at the end of this form). Based on the exploratory excavation conducted in the drum burial area in November, 1996, no drums, barrels, or bulk storage containers containing hazardous substances, pollutants, or contaminants are believed to be buried on site.

HIGH LEVELS OF HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN NEAR-SURFACE SOILS: YES __ or NO X

EXPLAIN: No contaminants in either surface or subsurface soils exceeded the SCDMs benchmark soil concentrations.

CONDITIONS SUSCEPTIBLE TO IMPACT FROM ADVERSE WEATHER CONDITIONS: YES X or NO __

EXPLAIN: Low level contaminants in surface soils could migrate through runoff from rainfall events.

THREAT OF FIRE OR EXPLOSION: YES __ or NO X

EXPLAIN: Analytical results of drummed waste within the facility did not indicate the presence of any RCRA characteristic nmable waste. The facility is secured and inaccessible to the public so no threat of fire or explosion is believed to exist at the site.

POTENTIAL FOR OTHER FEDERAL OR STATE RESPONSE MECHANISMS: YES __ or NO X

EXPLAIN: The state of Iowa has pursued and won an enforcement action case against the PRP. Little or no cost recovery was ever received by the state of Iowa, since the PRP left the state. The site was then referred to EPA in August, 1995 after their enforcement options were exhausted.

OTHER SITUATIONS OR FACTORS WHICH POSE A THREAT: YES __ or NO X

EXPLAIN: No other situations or factors pose a threat at the site.

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

POTENTIAL REMOVAL ACTIONS [40 CFR 300.415(d)]:

(NOTE: The following identifies potential removal actions which may be determined to be appropriate pending further review and study. The proposed actions should be considered preliminary proposals and are subject to change.)

SITE SECURITY: **YES X or NO _**

EXPLAIN: The site is fenced, however, a small portion of the fence near the northwest corner of the facility has been breached. The facility is adequately secured to ensure that it is inaccessible to the public.

STABILIZATION OR REMOVAL OF SURFACE IMPOUNDMENTS: **YES _ or NO X**

EXPLAIN: No surface impoundments present on site.

CAPPING OF CONTAMINATED SOIL: **YES _ or NO X**

EXPLAIN:

USE OF CHEMICALS TO CONTROL/RETARD SPREAD OF CONTAMINATION: **YES _ or NO X**

EXPLAIN:

CONTAMINATED SOIL EXCAVATION: **YES _ or NO X**

EXPLAIN: Low level concentrations of contaminants were present in surface and subsurface soils (no contaminant concentrations exceeded SCDMs benchmark levels), therefore, no excavation of soil is recommended.

REMOVAL OF DRUMS, TANKS, OR BULK STORAGE CONTAINERS: **YES _ or NO X**

EXPLAIN: No removal of drums, tanks, or bulk storage containers appears to be warranted at the site. During the subsurface exploratory excavation conducted in November, 1996 no evidence of drums containing hazardous waste was found. The drummed waste containing CERCLA hazardous substances) within the facility is secured and inaccessible to the public. Therefore, no potential threat to the public exists.

CONTAINMENT, TREATMENT, OR DISPOSAL OF HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS: **YES _ or NO X**

EXPLAIN: During the exploratory excavation conducted at the site in November, 1996 the majority of the paint waste that had been discharged on to the ground surface was removed and disposed of as a special waste. This source area appears to be mitigated, therefore, no additional disposal of any source area on site appears to be warranted.

PROVIDE ALTERNATIVE WATER SUPPLIES: **YES _ or NO X**

EXPLAIN:

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

REMOVAL SITE EVALUATION DETERMINATION AND REMOVAL PRELIMINARY ASSESSMENT FINDINGS AND RECOMMENDATIONS:

	REMOVAL NOT WARRANTED - REMOVAL SITE EVALUATION TERMINATED

(Cite one or more of the criteria from SECTION III. **REMOVAL SITE EVALUATION CRITERIA**, as the basis for the above determination.)

	NOT A RELEASE			NOT A FACILITY OR VESSEL
	NOT A HAZARDOUS SUBSTANCE OR POLLUTANT OR CONTAMINANT			SUBJECT TO RESPONSE LIMITATIONS
X	INSUFFICIENT QUANTITY OR CONCENTRATION			WILLING/CAPABLE PRP IDENTIFIED

COMMENT: Based on the findings of the exploratory excavation conducted at the site in November 1996, no hazardous waste (in drums, tanks, or storage containers) appears to be buried on site. Previous results from exploratory excavation in July 1991, indicated only low level subsurface soil contaminant concentrations and few containers. During the 1996 investigation the primary volume of the paint waste area was excavated and disposed of off site. At the present only low level contaminant concentrations are present on site and no significant threat is believed to exist. The primary pathway of concern is the ground water pathway and it does not pose a significant threat because the site is underlain by a clay layer at approximately 15 feet, so the potential for a ground water release is minimal.

	REMOVAL RECOMMENDED [___ EMERGENCY ___ TIME-CRITICAL ___ NON-TIME-CRITICAL]

(Cite one or more of the conditions or factors from Section IV. **CONDITIONS TO WARRANT A REMOVAL ACTION**, as a basis for recommending that a removal action be conducted.)

	EXPOSURE TO HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS					ADVERSE WEATHER IMPACTS
	CONTAMINATED DRINKING WATER		FIRE/EXPLOSION THREAT			CONTAMINATED SOIL
	DRUMS, BARRELS OR CONTAINERS		NO OTHER RESPONSE MECHANISM			OTHER FACTORS

(Identify one or more of the removal actions listed in Section V. **REMOVAL ACTIONS WHICH MAY BE APPROPRIATE**, *as examples of the types of response actions which are recommended.)*

	SITE SECURITY		DRAINAGE CONTROL			IMPOUNDMENT STABILIZATION
	REMOVAL OF DRUMS, BARRELS, ETC.		SOIL CAPPING			SOIL EXCAVATION
	CONTAIN/TREAT/DISPOSE OF WASTES		CHEMICAL CONTROLS			ALT. DRINKING WATER SUPPLIES

COMMENT:

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

VI. REMOVAL SITE EVALUATION DETERMINATION AND REMOVAL PRELIMINARY ASSESSMENT FINDINGS AND RECOMMENDATIONS (continued):

	ADDITIONAL REMOVAL SITE EVALUATION RECOMMENDED

*(Cite one or more of the conditions or factors from Section IV. **CONDITIONS TO WARRANT A REMOVAL ACTION**, as a basis for recommending that additional site evaluation be performed.)*

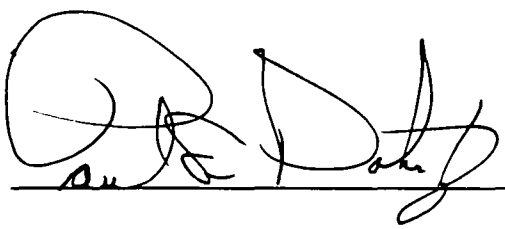
	EXPOSURE TO HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS				ADVERSE WEATHER IMPACTS
	CONTAMINATED DRINKING WATER		FIRE/EXPLOSION THREAT		CONTAMINATED SOIL
	DRUMS, BARRELS OR CONTAINERS		NO OTHER RESPONSE MECHANISM		OTHER FACTORS

*(Identify one or more of the removal actions listed in Section V. **REMOVAL ACTIONS WHICH MAY BE APPROPRIATE**, as examples of the types of response actions which may be appropriate pending the results of further site evaluation.)*

	SITE SECURITY		DRAINAGE CONTROL		IMPOUNDMENT STABILIZATION
	REMOVAL OF DRUMS, BARRELS, ETC.		SOIL CAPPING		SOIL EXCAVATION
	CONTAIN/TREAT/DISPOSE OF WASTE		CHEMICAL CONTROLS		ALTERNATIVE DRINKING WATER SUPPLIES

. ADDITIONAL INFORMATION OR COMMENTS

VIII. EVALUATION BY:

SIGNATURE: 

January 8, 1997

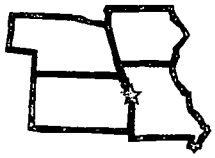
Paul E. Doherty
Site Assessment Coordinator
Superfund Division
USEPA Region VII

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT
(Supplemental Waste Inventory Sheet)

IX. HAZARDOUS SUBSTANCES, POLLUTANTS OR CONTAMINANT INFORMATION:

MATERIAL DESCRIPTION	CONTAINER INFORMATION					
TRADE NAME/ACTIVE INGREDIENTS	NUMBER of CONTAINERS	SIZE	TYPE	SOLID or LIQUID	% FULL	CONDITION
Texanol Ester Alcohol	1	55-gallon	Metal	Liquid	50	Good
Propylene Gycol	1	55-gallon	Plastic	Liquid	33	Good
Paraplex WP-1	1	55-gallon	Metal	Liquid	50	Good
Barsol EB	1	55-gallon	Metal	Liquid	50	Good
Rhoplex	1	55-gallon	Fiber	Liquid	75	Good
Dispersine Orange	1	30-gallon	Fiber	Liquid	75	Good
Cellosperse	1	55-gallon	Fiber	Liquid	75	Good
Perma Cal Yellow	1	5-gallon	Plastic	Liquid	75	Good
Colortrend	1	5-gallon	Plastic	Liquid	100	Good

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
SITE ASSESSMENT AND COST RECOVERY



SITE INSPECTION REPORT

for the

COTA DRUM SITE
DES MOINES, IOWA

MARCH 1997

Ecology and Environment, Inc.

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
CONTRACT No: 68-W6-0012

TDD: S07-9602-046C PAN: 0096CISCXX

SITE INSPECTION REPORT
FOR THE COTA DRUM SITE
DES MOINES, IOWA

TECHNICAL DIRECTION DOCUMENT: S07-9602-046C
CERCLIS ID: IA0001764943
SSID: XT

March 7, 1997

Prepared for:

U. S. ENVIRONMENTAL PROTECTION AGENCY REGION VII
SITE ASSESSMENT AND COST RECOVERY BRANCH

Prepared by:

THE ECOLOGY AND ENVIRONMENT, INC.
EPA REGION VII SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

CONTRACT NUMBER: 68-W6-0012

APPROVED:

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START Project Manager — 3-7-97 Date

Robert Overfelt, C.P.G.
START Site Assessment Manager — 3-7-97 Date

Hieu Q. Vu, P.E., CHMM
START Program Manager — 3/7/97 Date

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1.0 INTRODUCTION

The Ecology and Environment, Inc. (E & E), Superfund Technical Assessment and Response Team (START) was tasked by the U.S. Environmental Protection Agency (EPA) Region VII Site Assessment and Cost Recovery (SACR) program, to complete a Site Inspection (SI) of the Cota Drum site in Des Moines, Iowa. The SI assignment was authorized under START Contract No. 68-W6-0012, Technical Direction Document (TDD) S07-9602-046C. On February 8, 1996, START conducted a site characterization study which included the sampling of the containerized product/waste housed within the building at the site. On November 5-8, 1996, START conducted a site stabilization activity which included additional exploratory trenching at the Cota Drum site to determine if buried hazardous waste (drums) remain on site.

The objective of the SI is to determine if the site poses a threat to human health and/or the environment, and if the site warrants further investigation. During the SI, file information was reviewed to assemble a summary of the site's history, potential contaminants and sources were identified, and nearby target populations and sensitive environments were evaluated. In addition, city and State investigations, including sampling, have been conducted at the site and collated for SI purposes.

2.0 SITE DESCRIPTION, OPERATIONAL HISTORY, AND WASTE CHARACTERISTICS

2.1 SITE LOCATION

The Cota Drum site is located at 5512 S.E. 14th Street, Des Moines, Iowa. The geographic coordinates of the site are 41° 30' 12.3" W latitude and 93° 35' 5.1" N longitude (Reference 1). The site is located within Section 27, Township 78N, Range 24W, in Des Moines, Polk County, Iowa (Reference 2). Figure 2-1 illustrates the site location.

2.2 SITE DESCRIPTION

The site covers approximately 10 acres and consists of a parking lot and a combined manufacturing building and warehouse (Appendix A: Photo #13) (Reference 3). Figure 2-2 illustrates the site features. The site property is bounded to the south by a residential area, to the west by an elementary school (Appendix A: Photo #4), to the north by two abandoned homes and a small hotel, and to the east by Southeast 14th Street. The site is located in a light industrial/residential area, just outside the southeastern city limit of Des Moines. Cota Industries, Inc., formerly operated as a formulation facility for industrial paints and coatings including bonding/acoustic coatings and pool and paint glaze. The site is fenced and the interior of the facility is secured and inaccessible. The surrounding topography is gently rolling, and drainage from the site is to the west and north. The annual rainfall in Polk County is 30.89 inches (Reference 4). The site is located outside the 500-year floodplain (Reference 5).

2.3 OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

In the mid-1950s, Cota Industries, Inc., began manufacturing paints and coatings at the site. Cota Industries, Inc. was founded by Daniel L. Cota, who owned the company until 1984 when stock in the company was sold to a key employee (whose identity is not available), for a promissory note of over $140,000 (Reference 6). When the employee could not pay off the promissory note, the stocks were sold to David R. Sheets and M. Dana Kelly in 1986. After Sheets and Kelly purchased the business, the company was known as Exterior Systems and Cota Exterior System, Incorporated. The company continued under those names until 1990. During that time the facility was used for storage. Operations ceased at the site in October 1989, and on July 1, 1990, Sheets resigned, effective on October 1, 1990.

On February 26, 1991, Daniel Cota bought an assignment of certificate and took sole control of the property/facility.

At some time during the years of operation paint waste was dumped on the surface of the property and possibly several hundred 55-gallon drums were buried at the site (Reference 6). According to Daniel Cota, the drums were reportedly emptied and crushed prior to burial. The drums had allegedly contained paints/coatings, methyl ethyl ketone, mineral acids, formaldehyde, toluene, and xylene. An anonymous report to the Iowa Department of Natural Resources (IDNR) from a former Cota Industries employee alleged that most of the buried drums were empty, however, some contained formaldehyde and muriatic acid (Reference 7). This same employee also alleged that some sacks of pigment containing asbestos and lead were buried on site, and coating wastes were flushed out from the building on to surface soils. Product storage inside the building reportedly included soda ash, hydrated lime, ethylene and propylene glycol, acryloid, muriatic acid, nitric acid, lead acetate, various solvents and polymers.

2.4 PREVIOUS INVESTIGATIONS

The site was initially identified by IDNR following a complaint of "leaking chemical drums" stored outside the facility on November 20, 1989 (Reference 8). IDNR conducted a follow up investigation of the site on December 1, 1989, and confirmed that many 55-gallon drums were present in a drum storage area to the south of the facility (Reference 9). Also observed during the inspection, were drums stored on the loading dock along with some 5-gallon pails of a cement-looking material.

Another site visit by IDNR on December 13, 1989, revealed a disposal area of partially buried drums and other containers, extending from the northwest corner of the loading dock approximately 200 feet to the west along the northern property line. This disposal area is subsequently referred to as the drum burial area in this report. Paint waste was also observed on the ground surface immediately south of the facility and the loading dock area. The release has apparently flowed westward toward the western edge of the loading dock, and had covered an area approximately 40 feet by 40 feet. Evidence that a core sample from the paint spill area had been previously collected was observed, as a core hole through the paint indicated that it was at least four inches thick. A soil/paint sample was also collected on December 13, 1989, from the existing corehole which was subsequently submitted for heavy metals analysis. Results indicated concentrations of barium at 61 milligrams/kilogram (mg/kg), mercury at 90 mg/kg, lead at 9.4 mg/kg, and zinc at 270 mg/kg. On January 16, 1990, samples of the inner and outer paint layers collected by the IDNR contained concentrations of cadmium at 1.6 and 1.5 mg/kg, mercury at 190 and 74 mg/kg, and zinc

at 570 and 5,900 mg/kg, respectively. Asbestos analysis performed on the outside paint layer sample indicated that no asbestos was present.

One additional waste sample from the paint spill area was collected by the IDNR and submitted for Extraction Procedure Toxicity (EPT), total cyanide, and phenol analyses (Reference 9). Results of the EPT analysis proved to be below the method detection limits for barium, cadmium, mercury, and lead. Concentrations of zinc, fluoride, and nitrate (as NO3), were detected at 18 mg/kg, 3 mg/kg, and 38 mg/kg, respectively, for the EPT results. Total cyanide results tested below the method detection limit, and phenols were detected at 1 mg/kg.

On August 23-25, 1990, EPA conducted a Resource Conservation and Recovery Act (RCRA) compliance inspection at Cota Industries. The inspection included a reconnaissance of the facility and the property, an inventory of the products identified in the facility, and interviews with the former owners Daniel Cota and Meredith Stubbe (Reference 10). According to Daniel Cota, Cota Industries was formed in 1955 and operations at this facility began in 1957. His ownership spanned from 1955 to December 1984. Ownership of the site at the time of the interview was in question.

Stubbe stated that water-based acrylic paints and stucco products were produced in operations at the facility during her ownership (December 1984 to September 1986). She also stated that no solvents were used in the process, only ethylene glycol. Cota stated that he had used dry powder pigments (non-metal based) until the mid-1970s, at which time he had switched to liquid glycol pigments. He also said that mercury had been used as an additive to paint products (to prevent mildew) at a mixing rate of about one-quarter to one-half pound per 300 gallons of mix. He claimed to have stopped using the mercury in late 1980. When asked about the alleged disposal of "bad" batches of paint produced during the 1950s and 1960s he stated that buckets of paint were washed in the Mixer Room and reused. During the washing process, wash water flowed out a drain pipe on the south side of the facility to the valley area about 40 feet away.

On March 16, 1991, a local resident phoned the Des Moines Fire Department and reported an incident involving the exposure of several children to chemicals within the facility at the site (Reference 11). The Des Moines Fire Department's Hazardous Materials Team subsequently responded and identified the following drummed waste in the facility as: soda ash, sodium citrate, hydrated lime, propylene glycol, ethylene glycol, acryloid, mono methyl ether, pexanol, barsoleb, and diethylene glycol (Reference 7). The fire department officials also noted approximately 100 to 200 drums on the ground surface along the northern property line. No liquids were observed leaking from any of the drums. Following a radio

broadcast detailing the above-referenced events, a former employee came forward with additional information pertaining to the site. He stated that most of the drums routinely buried on site were empty; however, he alleged that some of the buried drums contained formaldehyde and muriatic acid; these drums ranged in volume from half full to full. In addition, the former employee alleged that sacks of pigment containing lead and asbestos were buried, and he also recalled coating wastes being flushed out from the building (Reference 7).

On March 18, 1991, Matthew Woody, Senior Fire Inspector, Des Moines Fire Department, interviewed Ken Cota (son of former owner Daniel Cota) who stated that empty drums had been buried in the western portion of the property behind the building (Reference 12). He stated that the drums stored on the back dock contained rocks and that the 5-gallon pails contained acrylic-based material. Woody also conducted a telephone interview with Daniel Cota on this same date. Daniel Cota stated that the hole in the ground surface of the paint spill area near the southeast corner of the building was resultant of previous sampling conducted by Ground Water Technology. According to Cota, "no problem" was found by Ground Water Technology. He also stated that there were no buried chemicals at the site, and that only "flattened buried drums" were present.

Following these incidents, IDNR requested assistance at the site from the Region VII EPA. On March 21-23, 1991, the Region VII Technical Assistance Team (TAT) conducted a visual reconnaissance and performed a geophysical survey of the suspected drum burial area (Reference 13). Visual evidence of paint waste on the ground surface was identified near the southwest corner of the building. Approximately twenty 55-gallon steel drums (containing a granular solid) and several 5-gallon buckets (containing what appeared to be plaster) were observed along the back dock at the west side of the building. Many of the plastic buckets were broken, and their contents had been released (Reference 6).

Drums were identified (on the surface and partially buried) in an area from the northwest corner of the building along the northern property line approximately 200 feet long by 15 feet wide. Drum headspace screening was conducted with a photoionization detector (PID) and results indicated no presence of organic vapors above background. It was noted that most of the drums on the surface appeared to be empty (Reference 6). The geophysical survey results indicated an area measuring approximately 0.5 acres containing large amounts of buried ferrous materials which was presumed to be drums (Reference 13). The boundary of the burial drum area is depicted in Figure 2-2.

On March 27, 1991, Matthew Woody interviewed Russ Davis, a local resident who had considered possibly buying the property and had conducted an assessment of the property (Reference 12). Apparently,

Davis had collected soil samples at a 4-foot depth and had submitted them to a certified chemist for analysis of paint, petroleum, mercury, and other contaminants. He stated that he had initiated his own assessment after an Ankeny firm had estimated the cost of groundwater and soil analyses at fifty thousand dollars. Davis indicated that the results yielded the presence of a petroleum residue at a depth of 4 feet, but according to the chemist, the concentrations were not detected at significant amounts. Davis did not specify the location where the sampling was conducted, and no analytical results were provided.

On June 25, 1991, IDNR personnel collected fifteen surface soil samples along the north, south, and west sides of the site perimeter to determine if any surface soil contamination was present, and to evaluate the potential for off-site migration (Reference 14). IDNR analyzed samples for heavy metals (including mercury), benzene, toluene, and xylene (BTX), total extractable hydrocarbons (TEHs), and asbestos analysis. Asbestos was not detected in any of the samples. Total extractable hydrocarbons were detected ranging from 4 mg/kg to 14 mg/kg. The heavy metals, BTX, and TEHs analyses yielded the following analytes and ranges: arsenic 2.9 to 9.1 mg/kg; barium 180 to 250 mg/kg; chromium 16 to 23 mg/kg; copper 11 to 20 mg/kg; lead 14 to 30 mg/kg; nickel 15 to 21 mg/kg; selenium 1.1 to 1.6 mg/kg; zinc 48 to 66 mg/kg; benzene 0.004 mg/kg; toluene 0.002 to 0.044 mg/kg; and total xylenes at 0.029 mg/kg.

On July 15-17, 1991, the TAT conducted a site characterization study of the Cota Drum site, which included exploratory trenching, soil sampling, and sampling the contents of excavated drums. The purpose of the sampling was to provide evidence to support a state lead enforcement case (Reference 3). Ten samples of sludges/waste were collected from within the four exploratory excavation trenches (previously identified during the geophysical survey). The analytical results yielded the following analytes and concentration ranges exceeding the method detection limits: asbestos (trace amounts in only one sample); barium 200 and 1,100 mg/kg; cadmium at 6 and 33 mg/kg; lead from 8 to 269 mg/kg; mercury from 0.21 to 5.2 mg/kg; zinc from 22 to 290 mg/kg; toluene from 5 to 170,000 mg/kg; 4-methyl-2-pentanone at 31,000 mg/kg; and xylenes from 1.1 to 5.9 mg/kg (Reference 15). It should also be noted that no ground water samples were collected during this site characterization study, as refusal (a clay layer or weathered shale) was encountered at a depth of 15 feet below ground surface (BGS) before reaching ground water (Reference 13).

The following analytes represent the only concentrations that exceeded the method detection limits in three liquid waste samples from the contents of some of the buried drums that were excavated: lead at 0.035 milligrams/Liter (mg/L); zinc at 0.340 mg/L; acetone 0.2 J mg/L; toluene at 0.058 J and 0.52 mg/L; ethylbenzene at 0.18 and 5.1 mg/L; xylenes at 1.9 and 20 mg/L; methyl ethyl ketone at 0.36 J mg/L; 1,2-

dichloroethane at 1.4 mg/L; 4-methyl-2-pentanone at 0.16 J and 0.18 mg/L; and phenol at 4.6 J and 11 J mg/L, respectively (Reference 15).

Four exploratory trenches were excavated during this investigation. Soil samples were collected from four excavated soil piles and three exploratory excavation trench bottoms at a six-foot depth. The trench locations are depicted in Figure 2-3. The analytical results yielded the following analytes and concentration ranges exceeding the method detection limits: barium from 210 to 260 mg/kg; cadmium at 6.3 and 11 mg/kg; lead from 12 to 59 J mg/kg; mercury from 0.2 UJ to 16 mg/kg; zinc from 27 to 1,500 mg/kg; toluene at 0.019 mg/kg; 4-methyl-2-pentanone at 0.160 J mg/kg; xylenes at 0.003 mg/kg; bis (2-ethylhexyl) phthalate at 1.6 J mg/kg; and formaldehyde from 2.6 to 7.5 mg/kg (Reference 11).

One composite sample of soil/paint was collected from the paint spill area. Total metals results indicated detectable concentrations of lead at 4.7 mg/kg, mercury at 16 mg/kg, and zinc at 1,500 mg/kg (Reference 15). A sample collected from the former drum storage area was also submitted for heavy metals analysis. This sample yielded concentrations of barium at 260 mg/kg, cadmium at 6.1 mg/kg, lead at 110 J mg/kg, mercury at 9.0 J mg/kg, and zinc at 150 mg/kg (Reference 15). Some of the concentrations listed above are J-coded or UJ-coded. The (J) denotes that the associated value is an estimated quantity, and the (UJ) denotes that the reported constituent may or may not be present.

2.4.1 START Site Activities

On February 8, 1996, START conducted limited sampling of the containerized product/waste housed within the building at the site. Representatives of EPA, the City of Des Moines, and IDNR were present during the sampling event. Ron Kozel, IDNR, stated that at the present time no one actually claimed ownership of the property, as Cota Industries, Inc., had ceased operation in 1989 following a series of investigations by IDNR. These investigations reflected poor waste handling practices at the facility, which included asbestos violations, process waste spills, and waste/drum burial activity on site. Kozel also stated that IDNR had pursued the case as an enforcement action in the Iowa Supreme Court and had won, but the potentially responsible party (PRP) had left the state, so little or no-cost recovery had ever occurred. The site was then referred to EPA by IDNR in August 1995, after their enforcement operations were exhausted. Kozel identified the potential contaminant source areas as former drum storage area (Appendix A: Photo #2), the paint spill area (Photo #1), and the drum burial area (Photo #3). During the reconnaissance, nineteen 55-gallon drums containing a solidified material and eleven 5-gallon buckets were observed on the dock on the west side of the facility (Photo #5).

A general inventory of the containerized product/waste within the facility revealed that it was primarily located in four areas of the building, which were designated as follows: the main storage room, the pigment storage room, the paint mixing room, and the drum storage room (Figure 2-2).

The main storage room contained several hundred bags of a pelletized and/or powdered dry product (i.e., portland cement, vise cover seal, and gypsum plaster). In addition to the dry product, several hundred 5-gallon plastic buckets of product material were also stored there, which included vice texture coatings, elastomeric joint mastic, sand blast finish, medium trowel finish, heavy trowel finish, heavy sand finish, drew foam, vise adhesive, and premix block filler (Appendix A: Photo #10) (Reference 16). Six other steel drums (four 55-gallon and two 85-gallon) were located in the main storage room by the overhead door on the east side of the building. The drums' contents had been generated from the previous trenching activities. Four of the drums contained waste, and the other two drums contained decontamination water (Appendix A: Photo #9). Drums containing solidified waste were observed along the back dock area (Appendix A: Photo #5) on the west side of the building (Reference 16).

A total of 11 waste samples were collected at the site. Samples were collected from four drums containing product/waste in the drum storage room (Appendix A: Photo #6), and three fiber drums in the pigment storage room. A total of 27 fiber drums containing dry powdered pigments of various colors were located in the pigment storage room. Three samples from the paint mixing room were also collected (Appendix A: Photo #8). This room contained approximately 50 to 100 5-gallon plastic buckets of paint. It should be noted that a conduit through the south wall of the paint mixing room to the ground surface adjacent to the south of the facility was identified. Based on historical evidence, this conduit was formerly used to discharge wash water from process rinsing operations onto the ground surface (Reference 10). A single sample was also collected from one of the four drums that contained product/waste which had been generated from the past trenching activities. This was the only drum of the four that was sampled, because the other three drums contained solidified material and/or crushed metal containers that were unable to be sampled.

All five drum samples submitted for flashpoint testing yielded flashpoints greater than 60 degrees Celsius. In addition, the following VOCs (with associated concentration ranges) were also detected in the drum samples: toluene from 1.1 to 320 mg/kg; ethyl benzene from 0.38 to 14 mg/kg; methyl ethyl ketone from 0.47 to 190 mg/kg; 2-hexanone at 2.9 and 32 mg/kg; 4-methyl-2-pentanone from 0.28 to 17 mg/kg; ortho-xylene from 0.25 to 12 mg/kg; and m and/or p-xylenes from 1.1 to 65 mg/kg. Mercury

concentrations ranging from 0.00489 to 0.495 mg/kg were detected in samples of powdered pigment and paint (Reference 17).

Site stabilization was conducted by START on November 5-8, 1996, in an effort to supplement the work conducted by TAT during the 1991 exploratory trenching and site characterization study. Additional exploratory trenching was undertaken by START because not all of the anomalies identified during the previous geophysical survey were excavated at that time. The START subcontracted P.W. Stephens Environmental Co. to conduct the exploratory trenching in the suspect areas. The areas where excavation was conducted are as follows: trench TR-3, trench TR-2, trench TR-5, trench TR-6, and the paint spill area on the south side of the facility (Reference 18). All exploratory trench locations are depicted on Figure 2-3.

The investigation-derived waste excavated during the START 1996 activities was staged on site in a total of 15 roll-off boxes. Eight of the roll-offs were provided by United Waste Systems Corporation, Des Moines, Iowa and seven were provided by Artistic Solid Waste Systems, Des Moines, Iowa. Following approval of two Special Waste Authorizations by IDNR on November 6, 1996, for disposal of the investigation-derived waste (specifically defined as cement/plaster pigment and soil with paint/plaster) (Reference 19). Nineteen 55-gallon drums of powdered pigment were staged in the loading dock area on the west side of the Cota Industries facility. Approximately 50-100 plastic 5-gallon plastic containers of the solidified cement/plaster waste were also staged in this same area. Both of these wastes were placed in the roll-off boxes (in addition to the crushed drums/containers removed during the excavation) that were subsequently delivered to the Metro Park East Sanitary Landfill, Mitchellville, Iowa for disposal. The final roll-off boxes of waste were transported to the landfill on November 8, 1996 (Reference 18). Following removal of the waste that was staged outside the facility, no waste remained on site that was accessible to the public.

Seven drums (two 85-gallon metal overpacks that contained liquid waste, two 55-gallon metal drums containing crushed solidified waste in plastic/metal containers, two 55-gallon drums that contained decontamination water, and one 85-gallon overpack that contained personal protective equipment [PPE]) were generated during the previous TAT excavation activities and had been staged inside the facility. The two drums of decontamination water were disposed of on site in an area proposed for excavation after visual inspection of their contents and headspace screening with an OVA (concentrations of 1.5 and 6 parts per million (ppm), respectively. The contents of the two drums that contained metal/plastic containers of solidified waste (cement/plaster material) were placed in a roll-off box for disposal. The two drums

containing liquid waste (one contained approximately 15 inches of amber liquid and the second was approximately one-third full of a white paint-like substance) were mixed with kitty litter and stabilized with portland cement. Following stabilization, this waste was also placed into a roll-off box for disposal as a special waste (analytical results for the contents of both drums indicated only low level VOC concentrations). The single 85-gallon drum that contained PPE was brought back to Kansas City and disposed of in the controlled dumpster at the E & E garage (Reference 18).

N

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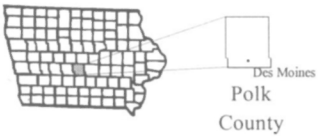


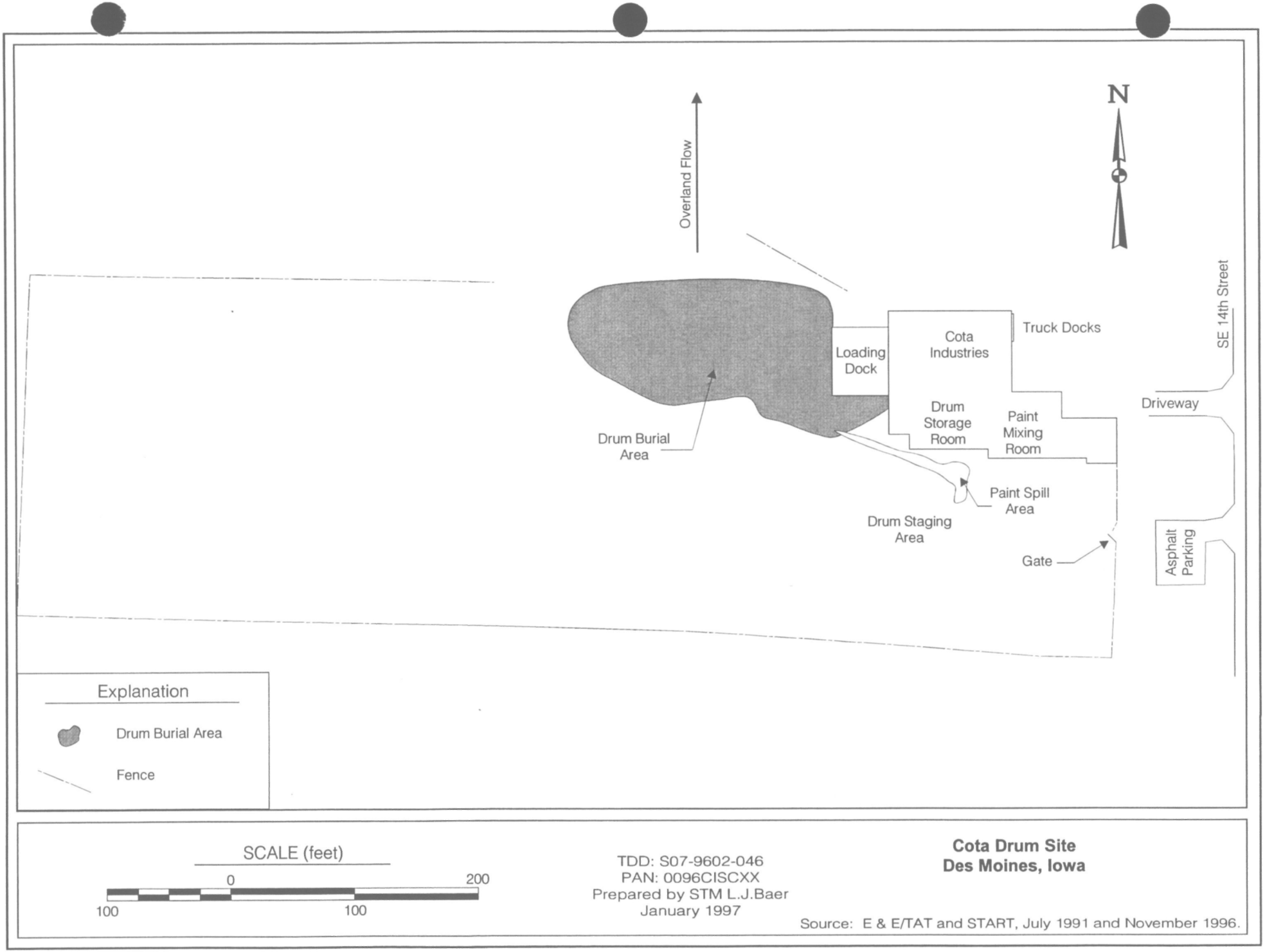
Cota Drum Site
5512 SE 14th Street
Des Moines, Iowa

Ecology & Environment, Inc./START
TDD: S07-9602-046C
PAN: 0096CISCXX
Prepared by STM Mark Mayo
August 1996

Source: USGS 7.5 minute series, 1956
Des Moines SE, IA Quadrangle

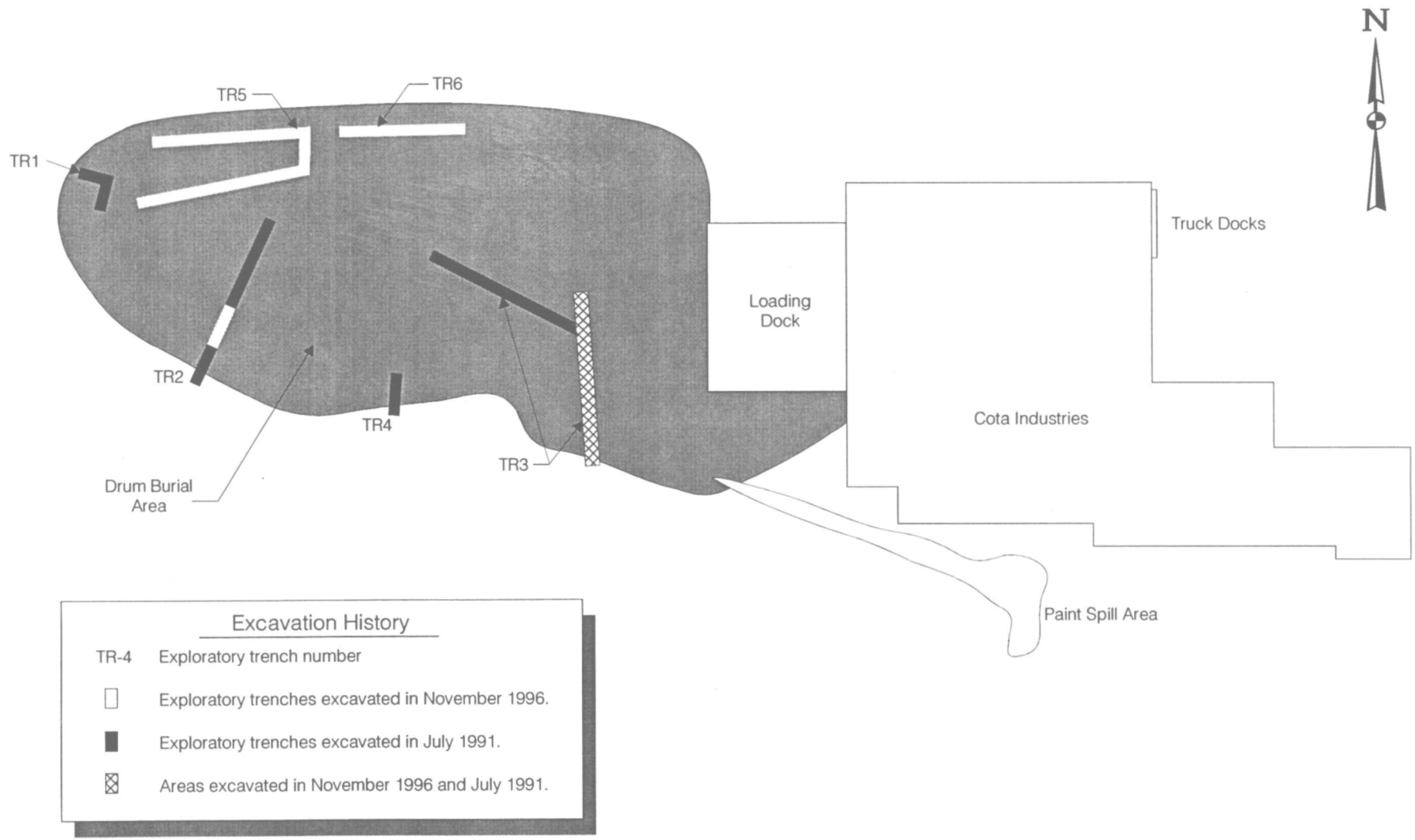
ecology and environment, inc.
OVERLAND PARK, KANSAS

Figure 2-1: Site Location Map



CDSFIG22.CDR

Figure 2-2: SITE MAP



CDSFIG23.CDR

Figure 2-3: SITE EXCAVATION MAP

3.0 WASTE/SOURCE DESCRIPTION

Three waste/source locations were identified during previous investigations as the former drum burial area, the paint spill area, and the former drum staging area (Figure 2-2). The burial drum area is an 0.5 acre area containing buried and partially buried drums. The 1991 TAT exploratory trenching operation and site characterization study identified containerized and uncontainerized waste materials and confirmed the disposal boundaries identified by the March 1991 geophysical survey (References 3 and 13). Sludge and drum samples (liquids and solids) collected within four trenches (TR-1 to TR-4) within the burial drum area indicated elevated metal and VOC contamination (Reference 15) (Figure 2-3). All liquid and solid waste excavated from the four trenches were containerized and removed from the site property (See Previous Investigation Section). Paint waste was also observed by State and EPA representatives on the ground surface immediately south of the facility building and loading dock area (Figures 2-2 & 2-3). The release had covered an area of about 1,600 square feet and soil/paint samples collected by EPA and State representatives indicated elevated cadmium, lead, and mercury concentrations (References 8, 9,15). All paint waste material identified on the ground surface (about 4 inches thick) in this source area has been removed from the site property during the START 1996 site stabilization.

A soil sample collected from the former drum staging area during the TAT 1991 exploratory trenching and site characterization study was found to contain concentration levels of cadmium, lead and mercury. This area measured approximately 10 x 80 feet. Currently, there are no drums stored in this area and no obvious surface contamination was observed.

Currently, sources identified at the Cota Drum site include the contaminated soils in the burial drum and the former drum staging areas. After the completion of the START 1996 site activities the majority of waste (drums and paint waste) has been removed from the site and disposed of in an off-site landfill. Soil samples collected during the TAT 1991 site trenching operation from spoil piles and six foot trench bottoms within the excavation trenches (TR-1 to TR-4) and the former drum staging area yielded low detectable levels of metals, semi-volatile compounds (SVOCs), and formaldehyde. No contaminant concentration level identified during the 1991 TAT activity was above the Region III Risk-Based Concentration (RBC) levels for residential soils. The entire boundary of the drum burial area (as defined by geophysics) has been identified as the contaminated source area because soil samples were not collected in excavated trenches (TR-2-, TR-3, TR-5, TR-6) during the START November 1996 trenching activity. It should be noted that soil samples were not collected during the 1996 trenching activity because many of the drums/containers excavated from the trenches were empty, waste identified and removed was similar

to waste sampled previously and determined to be a low hazardous waste, no obvious areas of contamination were observed, and no OVA concentrations were above background levels during the excavation activities (Reference 18). An 800 square foot area has been identified as the contaminated soil/source area for the former drum staging area (Reference 3, 18). See Table 3-1 for a summary of the TAT 1991 soil sample results from the former drum burial and drum staging area.

Table 3-1

ANALYTICAL RESULTS OF JULY 1991 TAT SOIL SAMPLING
COTA DRUM SITE
DES MOINES, IOWA

		SAMPLE IDENTIFICATION					
Analyte	***Benchmark (Residential Soils)**	**TR-1 6'**	**TR-2 6'**	**TR-3 6'**	**TR-1 Spoil Pile**	**TR-2 Spoil Pile**	**TR-3 Spoil Pile**
TOTAL METALS (mg/kg)							
Aluminum	78,000	12,000(J)	11,000(J)	19,000(J)	10,000(J)	9,300(J)	19,000(J)
Arsenic	23	11	10(U)	10(u)	10(U)	10(U)	10(U)
Barium	5,500	210	200(U)	260	220	200(U)	260
Cadmium	39	5(U)	5 U)	5 (U)	5(U)	5(U)	5(U)
Chromium	390	12(J)	10(J)	21	10(J)	12(J)	21
Iron	NL	18,000	23,000	20,000	18,000	17,000	20,000
Lead	400	27(J)	12(J)	11 (J)	23(J)	28(J)	11(J)
Manganese	390	1,400(J)	290(J)	760 (J)	1,100(J)	570(J)	1,100(J)
Mercury	23	0.2(U)	0.2(UJ)	0.2 (U)	0.25(J)	0.73(J)	0.2(U)
Selenium	390	5(UJ)	5(U)	5 (UJ)	5(U)	5(U)	5(UJ)
Zinc	23,000	57	27	60	64	68	60
SVOCs (μg/kg)							
Bis (2-ethylhexyl) phthalate	46,000	1,600(J)	1,600(J)	810(U)	900(U)	1,800(u)	820(UJ)
Formaldehyde	NL	(U)	(U)	(U)	2,600	7,500	2,600
VOCs (μg/kg)							
Toluene	16E6	13(U)	14(U)	19	14(U)	14(U)	12(U)
Xylenes	16E6	13(U)	14(U)	12(U)	14(U)	14(U)	12(U)
4-methyl-w-pentanone	NL	13(U)	14(U)	160	14(U)	14(U)	12(U)

KEY: * = Region III Risk-Based Concentrations for Residential Soils.
NL = Not Listed.
U = Non-detect.
UJ = Constituent may or may not be present.
J = Estimated Value.
E = Exponential Notation.
TR-1 = Trench Number.

4.0 GROUND WATER PATHWAY

4.1 HYDROGEOLOGIC SETTING

In Polk County there are two principal sources from which users obtain water supplies: the loose, unconsolidated materials near the land surface that comprise the surficial aquifer, and three principal rock aquifers. Surficial aquifers in Polk County occur in alluvial deposits near major rivers, in buried channel deposits, and in glacial drift. The three principal rock aquifers underlying the area are the Mississippian Aquifer, the Devonian-Silurian Aquifer, and the Cambro-Ordovician Aquifer (Reference 20). Figure 4-1 illustrates the formations and identifies aquicludes, aquitards and aquifers underlying the site area.

Based on the location of the site and available geologic data, the surficial material underlying the site area is glacial drift deposits. No buried channel or alluvial aquifers exist near the site. The glacial drift consists of varying amounts of clay, silt, sand, gravel, and boulders. The drift material may contain lenses of sand and gravel in the drift that are thick and widespread enough to furnish dependable water (Reference 20). However, during the TAT 1991 site characterization, groundwater sample collection was attempted at numerous locations on the site, but refusal at a clay layer or weathered shale layer was encountered at 15 feet BGS, and no water saturated deposits were identified to this depth (References 3 and 26). In addition, well log information from a private well located approximately 600 feet northeast of the site indicates that Pennsylvanian-age shale of the Cherokee Group is approximately 5 feet BGS (Reference 43). Based on these field observations and geologic information, it can be concluded that the drift material at the site is 15 feet thick, is underlain by Pennsylvanian-age shale, and is not saturated; therefore, no surficial aquifer exists at the site (References 3, 20, 26, and 43).

The drift is underlain by the Pennsylvanian-age Cherokee Group which is approximately 400 feet thick and consists primarily of shales with thin layers of clay, siltstone, sandstone, limestone, and coal. Although the Pennsylvanian rocks usually act as an aquiclude, sandstone layers within the Cherokee Group provide some wells in the southern half of the county with yields from 5 to 25 gallons per minute (gpm). The thicknesses of these sandstone units are quite variable and the depth of wells drilled into them vary in depth between 75 and 100 feet (Reference 20). However, well log information from three wells located within 0.25 miles of the site indicates that no significant water bearing zones exist from 0 to 200 feet BGS (Reference 43).

Underlying the Pennsylvanian aquiclude is the Mississippian Aquifer which is heavily used in Polk County by rural residents and consists of a series of limestones and dolostones. It ranges in thickness from 285 to 450 feet with yields ranging from 5 to 20 gallons per minute (gpm) (Reference 20). Ground water flow in the Mississippian Aquifer is toward the south-southeast (Reference 20a).

The Mississippian aquifer is underlain by the Devonian Aquiclude which consists primarily of shale with limestone in the lower portion. The Devonian Aquiclude does not yield water and ranges in thickness from 150 to 250 feet (Reference 20).

The Devonian Aquiclude is underlain by the Devonian-Silurian Aquifer which ranges in thickness from 550 to 650 feet. Water from the Devonian-Silurian Aquifer is of poor quality because it is highly mineralized. Therefore, it is unacceptable for human or livestock consumption and is rarely used in Polk County (Reference 20). Ground water flow in the Devonian-Silurian Aquifer is to the southeast (Reference 20a).

The Devonian-Silurian Aquifer is underlain by Ordovician-age formations including the Maquoketa Formation which consists of shale and dolostone and is an aquiclude; the Galena Formation which consists of dolostone and chert and is a minor aquifer; and the Decorah and Platteville Formations which consist of limestone, dolostone, and thin shale and form an aquiclude (Reference 20).

The Cambro-Ordovician Aquifer underlies the Decorah and Platteville Formations and forms the major deep aquifer in the county. It includes the St. Peter sandstone, the Prairie du Chien dolomite, and the Jordan sandstone, the latter of which is the major water producer. The Jordan Sandstone has yields greater than 500 gpm (Reference 20). Ground water flow in the Cambro-Ordovician Aquifer is to the southeast (Reference 20a).

Based on the site location, the ranges in depth from ground surface to principal aquifers are: (350 to 450 feet) Mississippian, (700 to 800 feet) Devonian-Silurian, and (2,300 to 2,500 feet) Cambro-Ordovician (Reference 20). The aquifers are under confined (artesian) conditions and are generally unaffected by local recharge-discharge relationships (Reference 20).

4.2 GROUND WATER USE AND TARGETS

The principal source of ground water in the Des Moines area is the alluvium along the Raccoon River (Reference 20a). This ground water source is thought to be used for domestic, commercial, and irrigation purposes (Reference 4).

The majority of residents within a 4-mile radius of the site are supplied by the Des Moines Water Works municipal system, which is a blended system composed of two surface water intakes and ground water infiltration gallery (References 22, 23, and 24). The Des Moines Waterworks supplies approximately 77,400 connections and at 2.4 persons per household for Polk County, this equates to about 185,760 persons (77,400 connections x 2.4 = 185,760)(References 22, 41). In addition to serving the city of Des Moines, it provides municipal water service to 14 cities/municipalities outside a 4-mile radius of the site (Reference 25). The following is a list of cities/municipalities that are supplied by the system with each respective population served: City of Berwick (1,351), City of Clive (10,899), City of Cumming (128), City of Johnston (4,171), City of Norwalk (5,659), City of Pleasant Hill (3,120), Polk County Rural Water District No.1 (960), Southeast Polk Rural Water District (3,108), City of Urbandale (10,800), Warren Water Inc., (14,979), City of Waukee (2,635), City of West Des Moines (26,736), City of Windsor Heights (4,800), and Xenia Rural Water District (3,765) (References 27-40). The total estimated population receiving municipal water in the outlying cities/municipalities is 93,111 people, therefore, the total estimated population supplied by the public water system is 278,871.

According to IDNR information, the ground water infiltration gallery is the primary water source contributing to the blended system, as it provides approximately 90 percent of the total water usage for the municipal system (Reference 23). The ground water infiltration gallery is composed of a series of 4- to 5-foot diameter slotted pipes that are set horizontally underground in alluvium deposits on the Raccoon River to approximate depths ranging from 15 to 30 feet bgs (Reference 22). Ground water from the alluvium deposits is infiltrated into the horizontal collection system. The gallery is located along a segment of the watercourse on the south side of the Raccoon River for approximately 2.75 miles within T78N, R24W, Sections 7,8, and 18 (References 2, 22, and 23). The nearest portion of the ground water infiltration gallery is located approximately 3.3 miles northwest of the site. Figure 4-2 illustrates the location of the infiltration gallery.

A total of 22 private registered wells (designated for domestic/household use) were identified within a 4-mile radius of the site (Reference 42). This information was gathered from the IDNR database which only included those private wells registered since 1987. Assuming the average number of residents per

house held for Polk County is 2.4, the total population served by private wells is 53 people (References 41 and 42). The private well nearest to the site is owned by W.T. Rice and is located approximately 600 feet southeast of the site (References 2 and 42) (Figure 2-1). The recorded well depth was 418 feet and the static water level was 170 feet (Reference 43). No well head protection areas were identified and the site was not found to be located in karst terrain (References 21, 44).

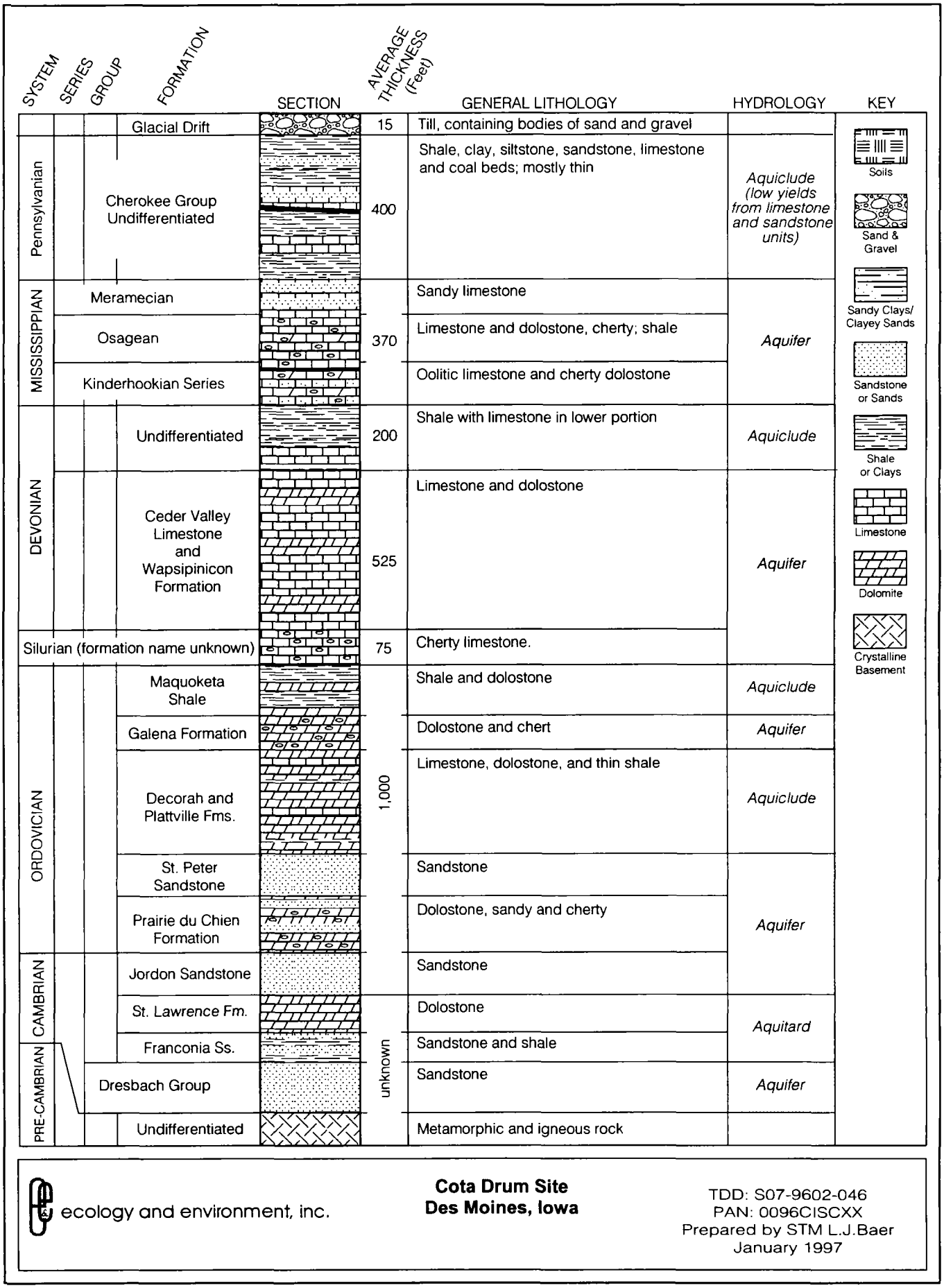
4.3 CONCLUSIONS

As previously referenced, CERCLA hazardous substances were detected in sludges and liquid waste collected from buried drums that were removed from the excavation trenches(Reference 3). Analytical results of the soil samples collected from the excavation trenches at a depth of six feet indicated that no VOCs, BNAs, total metals, or formaldehyde concentrations exceeded the Region III RBC levels for residential soils (References 15 and 45). EPT results of the paint waste that was located in the paint spill area on the south side of the facility did not exceed the method detection limits for the primary metals of concern, (i.e., barium, cadmium, mercury, and lead); therefore, the potential for contaminants to leach appears to be minimal (Reference 9). In addition, data from the former drum storage area, indicated that no detectable heavy metal concentrations exceeded the Region III RBC levels for residential soils (References 3, 15 and 45). The potential for a ground water release is low because a confining layer (shale) from 15 feet to at least 200 feet BGS underlies the site and overlies the aquifers.

Ground water targets do exist within 4 miles of the site and include the City of Des Moines ground water infiltration gallery on the Raccoon River and a few residential private wells. The potential of a ground water release to residents utilizing the City of Des Moines ground water infiltration gallery is considered low for the following reasons:

- The horizontal infiltration gallery is located about 3.3 miles northwest of the site in the surficial aquifer of the Raccoon River. The site is located in an upland area where no surficial or other shallow aquifer exists. Therefore, the site and the infiltration gallery are located in separate hydrogeologic settings (aquifers).

- Ground water sample collection was attempted at numerous onsite locations during the TAT 1991 exploratory trenching and site characterization studies, but refusal at a clay layer or weathered shale layer was encountered at 15 feet BGS, and no water saturated deposits were identified to this depth. Available well log information from wells located within 0.25 miles of the site indicated that Pennsylvanian-age rocks consisting primarily of shales and clays exist from 5 to at least 200 feet BGS.



Sources: See References; 20, 20a & 43.

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Figure 4-1: GENERAL GEOLOGIC/HYDROGEOLOGIC COLUMN

- Only low concentrations of metals, VOCs, BNAs, and formaldehyde were detected in subsurface soil samples at 6-foot depths. None of these concentrations exceeded the Superfund Chemical Data Matrix (SCDM) soil benchmark levels or the Region III RBC for residential soils. Toxicity Extraction Procedure (TEP) results for mercury from the paint spill area also indicated that the paint did not exceed detection limits for this analysis.

- The majority of waste (drums and paint waste) has been excavated and removed from the site.

It is known that fifty-three residents use private wells within 4 miles of the site. Additional private wells could exist within 4 miles; however, this number is unknown since private well users were not required by IDNR to register their wells until 1987. The potential of a ground water release to any nearby private well user is also considered low because nearby private wells draw water from deeper limestone and dolostone deposits of the Mississippian Formation. The Mississippian Formation is overlain by an aquiclude consisting of Pennsylvanian rocks approximately 400 feet thick. This aquiclude would act as a hydrogeological barrier between onsite contaminant sources and ground water.

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Des Moines, Iowa

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PAN: 0096CISCXX
Prepared STM Mark Mayo
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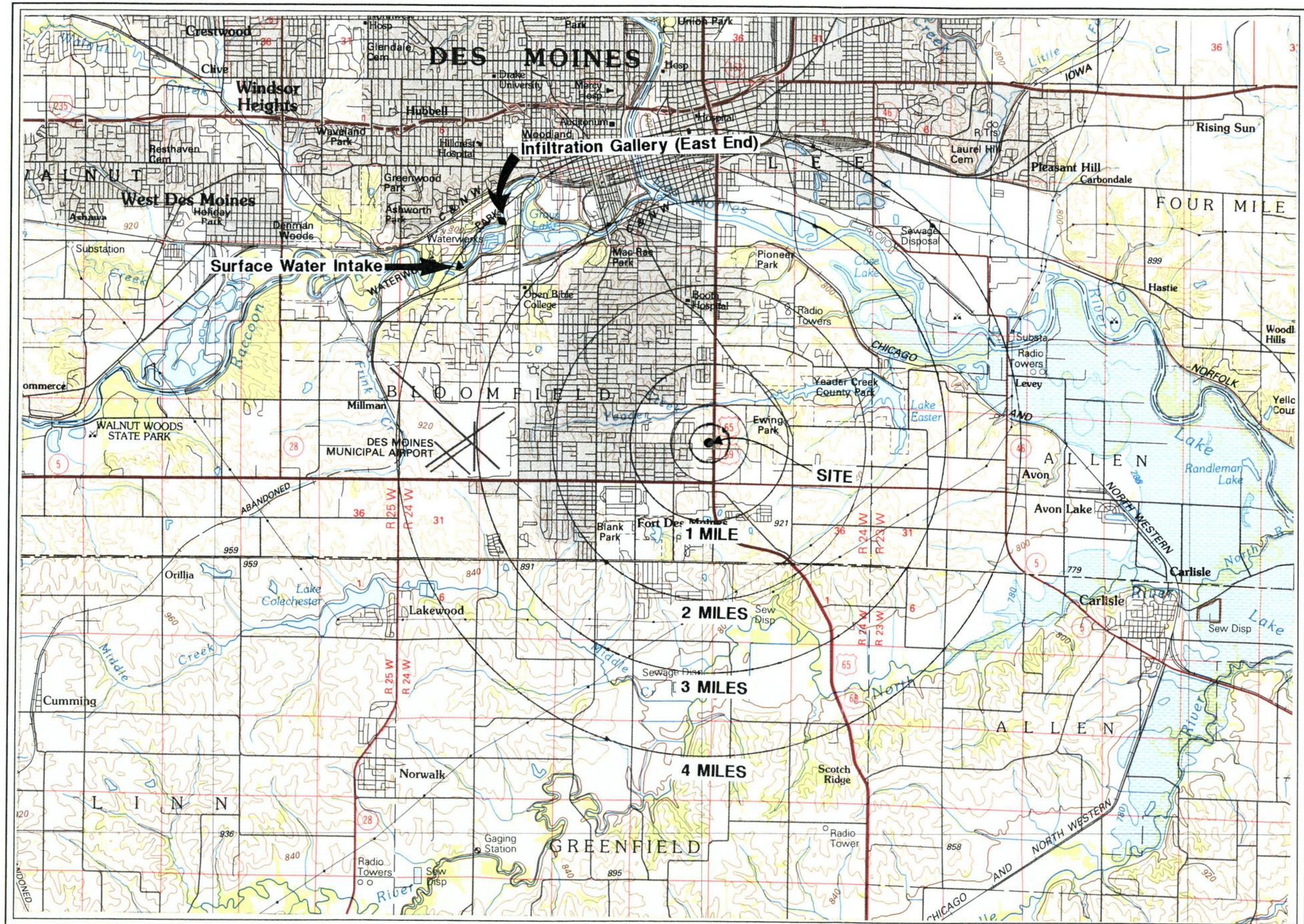

Figure 4-2: 4-Mile Radius of Influence Map

SOURCE: USGS County Map (topographic)
Polk & Warren Co., IA, 1966
1: 100,000 scale

5.0 SURFACE WATER PATHWAY

5.1 HYDROLOGIC SETTING

Overland drainage from the site flows to the north approximately 2,000 feet to the probable point of entry (PPE) in Yeader Creek (Reference 2). Yeader Creek, a perennial water body, then flows approximately 5,000 feet toward the northeast into Easter Lake. Surface water from Easter Lake flows approximately 1.96 miles northeast to the confluence of the Des Moines River. The Des Moines River then flows generally southeast. The stream flows for Yeader Creek and Easter Lake are assumed to be between 10-100 cubic feet per second (cfs) and the stream flow for the Des Moines River is thought to be $>10{,}000$ cfs. The 15-mile target distance limit is illustrated in Figure 5-1.

5.2 SURFACE WATER USE AND TARGETS

Surface water is the source of water for municipal, irrigation, and industrial use in Polk County (Reference 4). There are no surface water intakes located along 15 down stream miles of the site (References 46-48). Currently, the City of Des Moines municipal water system is composed primarily of a ground water infiltration gallery. This municipal water system is also supplemented by two surface water intakes located upstream of the site. One surface water intake is located near the Des Moines Waterworks facility on the Raccoon River, within the northeast 1/4 of Section 18, T78N, R24W (References 2, 22). This surface water intake is located approximately 12 miles upstream of the site (Figure 4-2). This intake contributes approximately 10 percent of the total water usage (primarily for blending to enhance water quality) for the City of Des Moines municipal water system (Reference 23). The second intake, which is used at a frequency of once every 10 years for emergency purposes is located in Prospect Park in north Des Moines within Section 20, T79N, R24W (Reference 23).

Easter Lake is located downstream of the site and consists of an 464-acre area managed by the Polk County Conservation Board used for recreational and sports fishing (Figure 5-1). According to IDNR, the following sport fish can be found in Easter Lake: bluegill, crappie, large-mouth bass, and channel catfish (Reference 49). Yellow Banks County Park was also identified on the Des Moines River approximately 11 miles downstream of the PPE. Yellow Banks County Park is a 474-acre area also managed by the Polk County Conservation Board and it is located within Sections 23 and 24, T78 N, R 23 W (Reference 2). Access to the Des Moines River for fishing is provided at Yellow Banks County

Park. The following sport fish were identified by IDNR to be found in the Des Moines River: white bass, walleye, northern pike, channel catfish, flathead catfish, freshwater drum, and carp (Reference 49).

Approximately 6.5 miles of wetland frontage was identified from the PPE along Yeader Creek downstream to the confluence of the Des Moines River and an additional 17.2 miles of wetland frontage was identified along the Des Moines River (References 50, 51).

5.3 CONCLUSIONS

The fifteen surface soil samples collected by IDNR around the perimeter of the Cota Drum site indicated detectable levels of heavy metals, BTX and THE compounds. However, no contaminant concentration exceeded the Region III RBC levels for residential soils. In addition, concentrations found in upgradient (south of any source area) samples were similar in concentrations found in downgradient (north of any source area) samples. There were no surface water samples collected along any in-water segment of the surface water pathway. Therefore, a surface water release cannot be determined. However, a surface water release for the site is considered low because the remaining onsite waste is thought to be minimal, low contaminant concentrations were found in onsite and perimeter soils, and the distance to the nearest perennial surface water body is 2,000 feet. The potential for a release via flooding is also considered low because the Cota Drum site is situated outside of the 500-year floodplain.

There are no drinking water intakes located within the 15-mile downstream target distance limit. Potential targets include the fisheries in Easter Lake and the Des Moines River and the numerous wetlands along Yeader Creek, Easter Lake, and the Des Moines River. Neither the fisheries nor the sensitive environments located along the 15-mile segment are believed to be impacted via surface water contaminant transport because of the above-mentioned reasons and the relatively high dilution factor of the surface water bodies.

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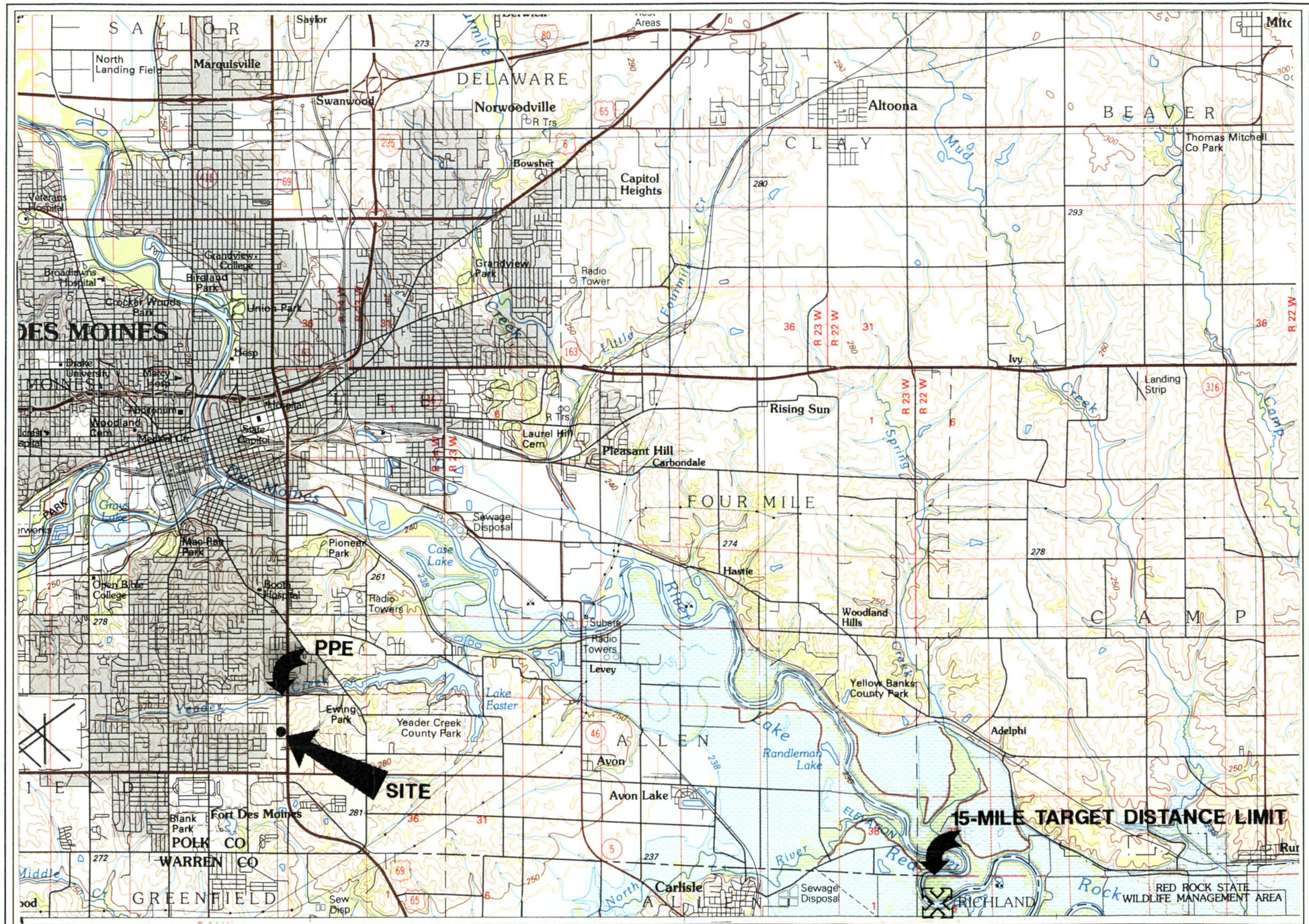

Figure 5-1: 15-Mile Downstream Segment Map

SOURCE: USGS County Map (topographic)
Polk Co., IA, 1986
1: 100,000 scale

6.0 SOIL EXPOSURE AND AIR PATHWAYS

6.1 PHYSICAL CONDITIONS

The site is well vegetated with grass and the property is accessible where a section of the fence (approximately 50-100 feet) along the northwest corner of the building has been knocked down (Figure 2-2). During the site visit on February 8, 1996, the building on the property was accessible due to broken windows and visible evidence of transient use (Appendix A: Photo #11) was observed (Reference 16). However, during the November 1996, START site stabilization activities, the building had been adequately secured and was inaccessible to the public (Reference 18).

6.2 SOIL AND AIR TARGETS

Currently, there are no employees working at the site and no residences or facilities located within 200 feet of any on site source area. The nearest residence is located approximately 400 feet southwest of the site, and the nearest school property (elementary school) is located approximately 800 feet west of the site (Reference 16)(Figure 2-1). The total population within a 4-mile radius of the site is approximately 35,956 (Reference 52). No terrestrially sensitive environments, significant natural communities, or threatened/endangered species were identified within a 4-mile radius of the site (Reference 49).

6.3 CONCLUSIONS

Surface soil contamination (depth of 2 feet or less) is suspected at the Cota Drum site. Cadmium, lead, and mercury and trace amounts of xylenes were found in samples collected at the drum burial area from soils from the spoil piles, which were placed back into the excavated trenches, therefore, contamination could exist at 2 feet or less. The same heavy metals were also found in a soil sample (assumed to be collected between 0 to 2-foot depth) from the drum staging area. However, contaminant concentration levels found in any onsite soil contamination source did not exceed Region III RBCs for residential soils. During the START 1996 site stabilization activity the majority of the paint spill area was removed and thought not be a source of contamination for the soil exposure pathway or air pathway

The exposure threat to any nearby population is considered low because contaminant concentrations found in onsite sources are considered a low hazard and concentration levels were similar to off-site (background) contaminant levels. In addition, potential sources are restricted to public access due to the physical conditions of the site (ie. fence, secured building).

The exposure threat via the air pathway is minimal because the majority of waste has been removed, and the remaining contamination found in onsite soils consists of low metal concentrations. In addition, the site is well vegetated and many of the previously excavated trenches in the drum burial area have been capped with clean dirt. Further, portable air quality monitors (HNu and OVA) were utilized during all the START site activities and no measurements above background were detected at onsite sources.

7.0 SUMMARY AND CONCLUSIONS

The Cota Drum site was first identified in November 1989, following a citizen's complaint alleging that "leaking chemical drums" were stored outside the facility. IDNR officials confirmed this allegation and subsequently identified three areas of potential concern at the site: the paint spill area, the former drum storage area, and the drum burial area. Sampling has been conducted by IDNR and EPA representatives in all three sources. A geophysical survey was conducted in March 1991 by TAT in the drum burial area. Based on the results of the geophysical survey, excavation was conducted and subsequent sampling of waste and soil from the trenching activities was performed. During the November 1996, START site stabilization activity all excavated waste (solid and liquid) was containerized in roll-off boxes and disposed of in an off-site landfill. After the removal of waste the paint spill area was thought not to be a source of contamination. The remaining source areas were identified to be the contaminated soils in the drum burial and former drum staging areas. Results of the soil sampling in these two sources indicated low levels (below RBCs) of CERCLA hazardous substances. A surface soil sample collected by IDNR downgradient of onsite sources in the overland migration path to the north indicated low levels of heavy metals (as compared to upgradient soil samples). There were no concentration levels found in onsite and perimeter soil samples that exceeded Region's III RBC levels for residential soils.

Based on available information the probability for a ground water or surface water release is low and the threat to human health and the environment is evaluated to be low. This evaluation is based on the documented low contaminant concentration levels found in on site soils, waste removal, and the physical and hydrogeological conditions of the site. The threat of exposure via the soil exposure and air pathways is also considered low because the majority of the contamination is thought to be in subsurface soils, the remaining contamination found in onsite surface soils consists of low metal concentrations, and the site building has been adequately secured and inaccessible to the public. In addition, property access is partially restricted with a fence and the site is well vegetated.

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